

MASSACHUSETTS PLOUGHMAN

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NEW ENGLAND

AGRICULTURE

JOURNAL OF

VOL. LXII. - NO. 1

BOSTON, MASS., SATURDAY, SEPTEMBER 27 1902

WHOLE NO. 3166

MASSACHUSETTS PLOUGHMAN
PUBLISHED WEEKLY AT
NO. 3 STATE STREET,
BOSTON, MASS.

TERMS:
\$2.00 per annum, in advance. \$3.50 if not paid in advance. Postage free. Single copies 5 cents.
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Agricultural.

Ornamental Planting.

If we were now located on a farm, one of the first things we would try for, after making the buildings comfortable for man and beast and planting a garden and orchard if they were not on the farm, would be the planting of some shrubbery and perennial plants about the house. It not only makes it more pleasant to those who live there, and to the passers-by, but if the farm is to be sold, the value of it will be increased by more than the cost of the plants put out, and if they are well well cared for, by ten times the cost.

There are many of our native trees that are hardy, and add much to the beauty of the surroundings. The ash and birch can be had of the cut-leaved varieties, and the maples in great variety, while the horse chestnut is a thing of beauty when in bloom, and a handsome shaped tree at all times. Where a hedge is desired as a screen our native hemlock is as good as any of the foreign evergreens, though for contrast a few of the Colorado blue spruce may be interspersed among them.

We would not set these trees in formal rows, but mix them in groups as they are usually found in our forests, in such a manner that each would bring out the beauty of others near it. If we want shade trees, we fear that they will have to be set within our own boundary lines, and not along the street, to be killed by the electric wires, or by those who put them up almost always without regard to the trees through whose branches they cut and slash, destroying the symmetry of the trees and leaving them to be finally killed by the electric currents. Then others are killed by the escaping gas from leaky mains, by the cutting of their roots when sewer pipes are laid or when the grade of the street is changed. If one has plenty of room and money to invest, there are many trees that may be added to the list we have named.

There are a large number of hardy shrubs to choose from that will give a succession of bloom from May until September at least. We would not like to omit the old-time favorite lilac, of which there are now dozens of varieties of nearly all shades of color, from the purest white to the pink, violet, crimson, rose, blue, dark red and purple. About the same time the snowballs, either common or Japanese are in bloom, and the small flowering almonds, both pink and white. The hawthorn, double white or scarlet, are a little later, but usually blooming in May, as also do bush honeysuckles and the seven o'clock spires. The magnolias vary from April until June as to the time of blooming, and from white to purple in color.

The azalea in all its various colors is one of the earliest June bloomers, though not much earlier than the delphinium, or the fragrant syringas. July brings the hydrangeas into bloom, and elegant longspires. The hydrangeas, some of them, are in bloom from July until September, and the weigelas are in bloom all summer. The roses can not be dispensed with, and there are such multitudes of them that we will not venture to name special varieties, excepting to speak of the crimson ramblers, with its profusion of clusters of rich-looking blossoms. The white and yellow ramblers are not as profuse bloomers as the crimson.

These bring us naturally to the other climbing plants, the ivies, the Dutchman's pipe, the trumpet flower, and the many kinds of clematis, some of which are almost constant bloomers from June to September, and the wistaria, with white, blue or purple flowers. The Madeira vine and the clematis vine are fine climbing plants, and the latter is hardy in deep soils. The bulbs of the Madeira vine need to be taken up each fall and set in the spring.

When we get to the bulbs we have, however, a long list. We need the peonies and the tulips, as once set they continue for many years to give us showy blossoms, and the canna and gladioli are worth the trouble of setting each year, as are the fragrant tuberose and the dahlias, which are in such varieties of size and color. They are better a little in the background, as are the hollyhocks and the rudbeckia or golden glow, and the smaller double sunflower. There are other hardy perennial plants well adapted to set among the shrubbery, the day lily, the sweet william, the anemone, the full asters, the blue gentian and the perennial phlox, with many others. There are also hardy carnations and the old-fashioned grass pink.

Of plants to set out in the spring there is an abundance, asters, ageratum, white or blue, begonia, geraniums, petunias and lobelia, salvia and lantana, coleus, verbena, pansy, heliotrope and others, while the nicotiana, nasturtium, alyssum and migno-

netta, marigolds, stocks, poppies and many others are easily grown from the seed sown in the spring where they are wanted.

Dairy Notes.

Guy H. Miller, in Dairy and Produce Review, makes the statement that the Jersey cow Gold Drops Maud, dropped May 26, 1895, has produced during year ending Aug. 31, 1899, 7266 pounds of milk, or 504.92 pounds of butter. During year ending Aug. 31, 1900, 7100 pounds of milk, or 502.83 pounds of butter. During year ending Aug. 31, 1901, 7831 pounds of milk, or 521.14 pounds of butter, and during year ending Aug. 31, 1902, 7435 pounds of milk, or 506.89 pounds of butter, an average for four years of 7369 pounds of milk and 508.92 pounds of butter. The butter yield has been calculated for this statement by adding 10 per cent. to the butter fat as shown by the Babcock test as taken twice a

testing four cows of nearly the same age and the product of one bull, and though they had not been forced to extreme production, they averaged, within a small fraction of an ounce, nineteen pounds of butter each, for the week. He wrote to the owner of the cows to ask if he owned the bull, and received as answer, "The bull is dead and said it is." He also instances fifteen official tests of the daughters of one bull, that at full age averaged 194 pounds a week of equivalent butter eighty per cent. fat. A bull that could get fifteen such cows should be worth \$10,000 at eight years old, and if not injured by excessive use should get strong, vigorous calves until twelve or fifteen years old, and perhaps older, if kept in health by proper feeding and exercise.

What he says of the Holstein-Friesian stock is equally applicable to any other pure-bred animals. In England they make a practice of renting out superior bulls of the principal breeds, often getting as much as

should also have the same every day, and if some oil cake, barley or wheat is mixed with it for him he will be more active. Do not, however, get him too fat. It is better not to let him run with the cows, but keep him alone, turning him with them for about an hour in the morning. These methods tend to bring earlier lambs, which are the most profitable. We would much prefer February lambs to March lambs, and we found it no more work to care for them, and we lost no more of them. The cold days of February were not as trying to the lambs as the winds of March. While a few roots may be good for them if the pasture is not good, they will be worth more later on before and after the lambs are dropped.

There has seldom been a year in the past when there has been so little complaint of the loss of hogs by swine cholera and swine plague as during last year. Perhaps it would not be too much to say that there has

tells how he kills the moth worm in his honey before he ships it. He has a tight box made large enough to hold a number of supers of section boxes or hive bodies at one time, which box can be closed nearly air tight. He subjects the combs for 24 hours or longer, which not only destroys any worms that may be there, but the eggs also, which he could not do when he used the sulphur process. He tested it on the winter stores of a number of colonies, and they wintered in good shape, showing that the fumes did not affect the honey so as to injure the bees. Some honey which had been so treated kept all winter without granulating, where other honey kept with it, bought from several different beekeepers, had all begun to granulate. Whether that was the cause of its keeping so much better he could not tell.

It is possible to take a fall swarm of bees and carry it safely through the winter, but

ing of commercial fertilizer early in the spring. The rows should be about four feet wide when the plants blossom, and there will be, or should be, if the season is favorable, from half to two-thirds of a full crop, and with care to keep the weeds down after the fruit is picked there should be a thick, matted row the next season that will yield a full crop, beside new plants to set out, in abundance. After the second year it is usually thought best to plow up the old bed and grow some other crop there, as it is easier to start a new bed than to keep the weeds down, and usually by that time there are insects that are troublesome in the old bed.

When we were young it was a custom for many who called themselves good orchardists to whitewash the trunks of their apple trees every spring, after scraping off all the bark. They had an idea that it destroyed the insects or their eggs, and there is no doubt that it did to a certain extent, but we always thought that an orchard so treated was disfigured by it, and we think a solution of soft soap, about as thick as paint, mixed with a solution of washing soda, made very strong, or a solution of one pound of commercial or caustic potash in two or three gallons of water would destroy more insects, and if it was washed off it supplied a certain amount of fertilizer to the soil, although nearer the trunk than we would care to apply fertilizer as a general rule. When we put fertilizer in an orchard for the benefit of the trees, we want it under the extremity of the branches or even farther out, as the roots usually extend farther than the branches, and they gather their food with the small rootlets, and not with the main roots. But many orchards are so set that there is a little mound around the trunk of the tree, and what is washed from the trunk may be carried farther away.

Many set peach trees at twenty-one feet apart or about one hundred to the acre, but here in the North, where they are short lived or thought to be, others put them from eleven to fifteen feet apart, and keep the branches headed in, making a compact tree, and getting from about 180 to four hundred trees to the acre. The same distances are usually used for the plum. We used to think such close planting was one cause of their dying so young, but have about decided that if they are given fertilizer enough of the right kind, and are not permitted to overbear, they can be kept alive as long as if placed at the greater distance. Of course the tree that has been headed in must not be allowed to produce as much fruit as those that are taller and more widespread.

The blackberry is growing to be regarded as an agricultural pest in Australia, as it grows so rapidly and so rank that they bid fair to cover the face of the country. The fruit and the jam from it is as nice as that made in Europe or America, but many do not care to give up their farms to blackberry culture or the production of jams. Too much of a good thing is often embarrassing.

From experience at Amherst, Mass., Prof. G. E. Stone writes that the method of spraying by the Ware nozzle has given the best results, but it requires men more experienced and better tree climbers, as it gives only a spray and must be held near to the foliage. The Vermorel nozzle comes second in good results, and by coarser spray may reach higher branches without so much climbing on the part of the sprayer. The results may not be as good as those by the Ware nozzle, but it has proved very satisfactory at Amherst. The method now in use in Boston and Northampton of forcing the spraying mixture by steam through a nozzle having an aperture one-eighth of an inch in diameter, he thinks, saves some time, but it takes more of the spraying mixture and gives the poorest results of any method he has seen tried. In Amherst it cost about \$1.35 a tree to spray them with dipnet solution, twenty gallons per tree.

At one time the planting of mulberry trees and the rearing of silkworms became very popular in New England and along the Atlantic coast. From about 1830 to 1840 large numbers of the trees were set, and often high prices paid for them. But a severe frost in 1841 destroyed nearly every one in New England, and we think as far south as New Jersey, and this so discouraged the silk worm breeders, that scarcely one was left. There are a few mulberry trees left alive, that either were of a more hardy variety, or that stood in more favorable location than those that were killed, probably the former, as it is now claimed that there are certain varieties that are hardy in the North. But the place for this industry seems to be in the Southern States, both because the trees there would not be killed by the frost, and because labor is cheaper there than in the Northern States, and women and children can be employed in the care of the silkworms. The North Carolina Experiment Station is giving some attention to the matter, and estimates that in fifty thousand families the product of four to five ounces of silkworms could be cared for, without any hindrance to other work. As the United States now manufactures and uses more silk than any other country, it seems right that some of it should be produced here.

Aside from Jacob Ruppert, the owner of Oakland Baron (2.004), no man has greater reason to be pleased with the success of that son of Baron Wilkes as a sire than Col. J. M. Galvin, who owns the handsome trotting stallion Mackay Wilkes, that has trotted a trial mile in 2:18, and whose sire is Red Wilkes. The dam of Mackay Wilkes is the great brood mare Lady Mackay, that produced Oakland Baron (2.004), etc. Colonel Galvin is surely in luck, for he also has a well-bred, promising young stallion and a likely filly, both by Oakland Baron.



RED ASTRACHAN.

month, which is not unfair, though we would not like to allow quite as much overrun as that, for we think fifteen per cent. overrun is enough to make a butter with full amount of butter fat. But she made a churn test of sixteen pounds of ounces per week as a three-year-old. She has gone dry from five to seven weeks each year, and has dropped a vigorous, healthy calf each year during the test. She also took the sweepstakes record as a show cow at Los Angeles Fair last October. It will be noticed that her best record was made when passing from a five-year-old to six-year-old, and we think that is usually the most productive time for the Jersey. Some other breeds if not forced do not reach their best until about eight years old, and even then the best is not large. Certainly it is not the best cow west of the Rocky Mountains she is a good one. As her weight is about nine hundred pounds, it will be seen that her production of butter fat was about half her own weight each year. As it costs but little more to make a pound of butter fat than a pound of beef, how would fattening even baby beef compare with butter making on such a cow? Or reckoning butter at twenty cents a pound she would give an income of over \$100 a year, while the cost of her food should not exceed \$35.

While last year Australia exported 15,000 tons of butter, this year the drought has so cut off the feeding crop, that there has lately been a carload of Canadian butter sent there in a steamer from Vancouver. The price paid for it was above that paid in Canadian markets. It goes in cold storage and it reaches there in good condition further orders are expected.

Almost every week we see evidence from those who have found it necessary to milk their cows and heifers before they drop their calves. A writer in Baltimore American can say all of his best cows had to be milked before calving, and some of them a month before. Last winter he had a fine heifer that looked as if she ought to be milking two weeks before calving, but about that time he read an article in which the writer claimed that it was a positive injury to milk a cow before calving, and he decided he would not do it, with the result that she lost the use of one-quarter of her udder. A heifer needs milking before calving more than an old cow, for a cow that begins to make an udder that needs milking a month before she drops her calf might as well be called a continuous milker and not be dried off at all. This is one of those old superstitions that ought to have gone out with the idea that it spoils a cow to give her grain food while in milk, or to keep her in a comfortably warm stable in cold and stormy weather.

There has been and is yet too much of breeding from young, untired bulls, and too much haste to dispose of them as soon as heifers of their own get were old enough to be bred, this being done to avoid the dangers, real or imaginary, of inbreeding in a small herd. The use of young bulls was bad enough when they and the cows were but scrub, and it is much worse in case of really valuable well-bred animals. A writer in the Holstein-Friesian Register tells of

five hundred dollars a year for an aged animal that is known as a producer of good stock. While this could scarcely be done in New England, it might be well to keep pure-bred bulls until the character of their get was established, and then to sell to other breeders or have some system of exchanging bulls with them. We almost wept one day when a neighbor asked us to take an eight-year-old Jersey bull to the abattoir for him with our fat cattle. Regular work and gentle handling kept him as docile as any cow, and he was then a sure stock getter, and we knew him as the sire of many prime butter cows, yet he went for a very small sum. We would prefer to risk inbreeding at least once to parting with an animal one thought good until we had tested the cows of his get.

Where the separator for the milk is on the farm, there is the advantage of having the milk milk sweet and warm night and morning to feed the calves and pigs. With proper care for the cream it may be so kept as to make the trips to the creamery only three times a week instead of every day, while the load is lightened. As there is no sour skimmilk to bring back, the work of caring for the cans and keeping them sweet is much reduced, and the butter will be of a higher grade if the butter-maker is at all expert in his business. But when the cream is kept on the farm for two days or for three days to avoid Sunday work, it must be cooled directly after it is separated, and kept cool. The best way to do this is to set the cans into a Cooley creamer or a trough of water at about a temperature of 30°, water, and allow them to stand until the cream is as cool as the water, then remove to a tank of ice water until ready to take to the creamery. Protect from the sun when transporting it.

Live Stock Notes.

In selecting a boar for breeding purposes we should try to get one from a prolific sow, and, if possible, an old sow that has made a good record for large litters and good thrifty pigs. This will usually produce more and better pigs than a boar from a young sow or one of a small litter, though the latter may be the better-looking animal, owing to its getting more milk when young. While the boar may be used for service at eight months old, it should be to only a limited extent, and the yearling boar or older will usually get the strongest pigs and the greatest number. The sow should be long-bodied and not too coarse in the bone or bristles, lest she fail to prove a good milker, and should be quiet and gentle. Do not keep changing from one breed to another until there is no telling what is the original breed. Such mongrels usually have the faults of all the breeds and lack their good qualities. The more nearly pure bred the male the better, as with other stock.

Before the ram is turned with the sheep they should be in a good pasture and have a light grain ration every day. Clover pasture and rape are excellent, and the grain should be a light feed of oats and bran. The ram

never been a year since pork raising became a general business in the Western States. Many papers are inclined to give the credit for this to the high price of corn, that has caused its use as an exclusive diet to be greatly reduced, and other grains or pasturage given as a substitute. We have no doubt but that this has helped, but we would give a share of the credit to climatic conditions. To the very abundant rains since last year's drought, which have kept streams full of running water, and prevented the hogs from filling themselves with water from stagnant pools or ponds, and to the cooler season. Then the pasturage has been good, and they have not lacked for green feed, which was fresh, and not wilted or half dried as it stood in the field. Possibly also the growers have been learning something by the experience of past years, and are keeping their animals under better sanitary conditions, as the price is now such as to greatly increase their value. If the corn-feeding was a predisposing cause of cholera, we should expect a few to be more careful this year, and many to fall back into the old methods and lose their hogs this year because a heavy crop is likely to make corn a cheap food again.

The Massachusetts Station says that they have proved that linseed meal, cottonseed meal and Chicago gluten meal have about the same value for feeding lambs, and the change does not materially affect the cost of the ration. Buffalo gluten feed and Chicago maize feed have about equal value and cost. The dry matter in four pounds of ensilage is about equal to that in one pound of good rowan. Lambs that had a nutritive ration of one pound of protein to 4.7 of carbohydrates made a greater gain in live weight, and manure of better quality than when the ratio was one of protein to seven of carbohydrates.

Bees and Honey.

A writer in the Journal of Agriculture boasts that he has one colony from which the increase was six swarms, that including swarms from some of the early swarms that came out. His method of feeding explains this increase to some extent, as he says he feeds to a colony about fifteen pounds of sugar in February. That is in Missouri and would be too early in this climate for them to start brood raising, and we should not feed until about the first of March here if they had a fair amount of stores through the winter. As the worker bee takes a little less than a month from the egg to gathering honey, there would be a perceptible increase in the number of bees in the colony by the first of April, and early in May a swarm might be ready to leave. For the cost of sugar, about seventy-five cents, he gets early swarms that will put away about forty pounds of honey each in a good season, worth at least \$4, beside the value of the new colonies. But we should prefer that they were restricted a little in swarming, and that the new colonies were not allowed to swarm at all. Six colonies from one we think too many, even where feeding is done at the proper time and the honey flow is good.

A writer in the American Bee Journal

most men would say it was more expensive and trouble than they would be worth. They should be put into a hive with as much empty comb as they will be likely to cover, probably not more than four or five at first, and if the honey flow from the fields is not good they will need to be fed. Dividing boards should be used to separate them from the empty spaces, and perhaps if they are a strong colony, and get their frames well filled with honey and brood, a frame of empty comb may be placed between those they have filled. But this will probably make feeding necessary before winter, and in most cases it would be better to destroy the queen and unite the bees with another colony. But those frames of empty comb are what makes it possible to save the late swarms, even when an earlier colony placed in a hive with empty frames would not store any surplus at all.

Orchard and Garden.

There is scarcely any variety of pear that is not better for being picked before fully ripe and then ripening under cover. This after-ripening may be retarded or hastened almost at will by the method of storing. If kept in a cellar or other room moderately cool, at about an even temperature, they ripen up slowly, while if in a dry and warm room, and covered with a blanket to exclude the light, they will ripen in a few days or a week, according to their condition when picked. If desired to keep them several weeks, they should be put in cold storage, at about 35°, and a rather close watch kept on them, at least after the third week, marketing them as soon as it is found that some of them are beginning to be mellow. Some of the very late varieties may be kept through the winter in this way. It is of little use to put pears or any other fruit in cold storage after they have begun to grow mellow, or to put in any that have been bruised. While all fruit should be handled with care, that intended for cold storage needs special care. It is often a puzzle to the beginner to know just when he should begin to pick his pears, as the time is so varied with different varieties. Some wait until they find a few ripe or nearly so on the extreme end of the branches, usually on the south side of the tree. But if they wait for that it will be better to market early. A better test is to take the pear and bend the stem backward. If it easily separates from the branch it is ripe enough to gather, but if the stem breaks before cleaving off the twig it is not ripe enough.

Strawberry plants may be set at any time from the middle of August to the middle of October, though the earlier the better, if the weather is good and the soil in good condition. Set the rows about six feet apart, and the plants about a foot apart in the row. The runners that have started on the plant set out, or that will be started later, should be trained out in the direction they are desired to grow, and either pinned down or held in place by a small stone until the new plant has rooted. In the fall, mulch with coarse horse manure, or other litter that is free from weed seed, or mulch with good clean straw and apply a dress-

The Water Supply on the Farm.

This can hardly be said to be second in importance to feed, as both are indispensable and dependent on each other.

A farm well supplied with good water for both winter and summer may be said to possess one of the first and best advantages, and he who does not pay attention to this matter in selecting a farm is making a serious mistake.

There is nothing better for this purpose than good spring water, and fortunate are those who located the water on the farm, as it is not only to be had, but it is necessary that it can be done by gravity. It will pay to conduct water a good distance to the farm building where this can be done. In some cases there are good springs, but so located that the water will not run by gravity to the buildings.

In such cases, if the springs are large, and there is a fall directly from them of a few feet, the water may be brought where wanted by hydraulic force. This is the case on the farm of the writer, and the system has been in successful operation now for a number of years. But it is necessary with this system to have a large spring, as only one-seventh of the water passing through the ram will be forced to the buildings, the larger part being required for operating the machine.

If any intend to use a ram, they should first study well the conditions necessary for its successful operation. If there is no fall by which power can be afforded to operate the machine, then a windmill might be employed to force the water to its destination. Windmills are largely employed for raising water from reservoirs, streams or wells, for farm or other purposes, in many places, and so must be practically good for the purpose.

This system works well in pastures, for which it is much used for pumping water for the stock, and can also be just as well employed at the barn at all times of the year.

A farmer once living not far from the writer, not having springs near his buildings, sunk a large well outside of the stock barn, built a large cistern in the loft where it could be protected from the frost, placed a windmill on the top of the barn, which pumped the water from the well to the cistern, from which it was conducted to the stables below, to the yard outside, and across the road to the house, where it was used for a variety of purposes. This was a very convenient arrangement, and must have answered the purpose well.

Another intelligent and well-to-do farmer in the central part of the State obtained a plentiful supply of water by boring an artesian well in a ledge hill, to the back of his buildings, erecting a windmill and putting in a pump. Near the well he constructed a large reservoir, capable of holding enough for a week's supply. After this was filled the windmill would be thrown out of gear until again wanted.

So it will be seen water may be furnished for the uses of the farm in quite a variety of ways, more or less expensive, according to location or attendant circumstances, but it will be better for a farmer to invest quite a sum in obtaining a supply of water that may be relied upon, rather than undertake to get along in such ways as are often resorted to.

Franklin County, Vt.

Northern New York Farm Notes.

Our farmers have recently finished harvesting the largest crop of hay ever grown in northern New York, and the following estimates of the crop of a few of my neighbors will give you a rough idea of what they have. One farmer estimates to have raised 400 tons, two others 300 tons each, another 240 tons. I have raised 140 tons, and others various lesser amounts. Quite a percentage of this hay will be fed out on the farms where grown.

The grain crop, especially oats, was also very heavy and of good quality, but the growth of straw was so large that it is considerable work to handle, store and thresh it. Our barns are all full to the last corner, and many stacks have had to be made. Potatoes are looking finely and give promise of a large crop.

Corn has had a hard time. It was cold and damp all the early part of the season and many fields of corn failed to come up as they should in the spring. Much of what germinated failed to get out of the ground, as a cold spell came on at a critical time. Other fields of a warm sandy soil came up better, but grew slowly, and now it is too late in the season to attain its usual growth, although we hope to be able to fill our silos, as rather more acres were planted this season than formerly.

I have seventeen acres of corn to put into two silos holding fifty tons or so each, and expected to have to build another silo, but shall not now, although I do not expect to get the crop all into the silos.

Pastures have held out better than usual, and the season's flow of milk has been good late in the season.

L. L. SHEDDEN.
Ellenburgh Depot, Clinton Co., N. Y.

Which is the Fastest Hitch?

Recent trotting has brought out many interesting facts, one of which is the closeness with which the modern trotting wagon approaches the sulky, if it does not actually surpass it as a speed implement. Lord Derby trotted in 2:05, at Brighton Beach, to a wagon, driven by an amateur; the next week, at Readville, he is defeated to sulky in the same time, though driven by a professional of great skill. York Boy, driven to wagon by an amateur, won handily in 2:08, time which was too much for him in the hands of a professional expert, when driven to sulky a few days previously. These are only two instances which indicate that the modern trotting wagon is as fast as the modern sulky. There are many others pointing in the same direction.

The bicycle wheel on either vehicle removes friction to a remarkable degree, and while the wagon, if of comparative strength, must always be slightly the heavier vehicle, the distribution of the weight between four points of lighter contact with the ground, instead of two points of deeper pressure, eases the earth friction materially upon a track covered with a cushion of loose dirt, which is a condition aimed at in race meetings. But probably the chief advantage of the wagon is in facilitating the horse's efforts to poise himself in a way to obtain the best speed for the amount of vital energy expended. The poise is mainly instinctive to the animal, and while it may be assisted by proper "balancing" appliances as determined by careful experimentation, he must have practically a free hand to produce his greatest achievement.

One, and an important condition that defeats the efforts of the horse to poise himself most effectively, is the disturbing vibration of pressure which the sulky throws upon his harness girth with each jolt caused by change in position or attitude of the driver. The wagon balances itself, which the sulky does not. The shafts of the

wagon are very light, and being loosely hinged on carry no stiff balancing pressure like those of the sulky, and their weight and motion being uniform, they are quickly taken into account by the horse who accommodates himself to them, and knows just what to count upon at each stroke; whereas the sulky, which is not self-balancing like the wagon, asserts a swaying pressure, which is continually bothering the horse with new and unexpected movements to hold his poise against.

Under the original rules of trotting in vogue prior to the organization of the National Trotting Association, it was permissible in a race technically "in harness" to start a horse to a wagon. When the term "in harness" was originally adopted it was manifestly used to shut out saddle competition, then quite common in trotting races, and regarded as a faster way of going. Of course "in harness" literally applies as much to a horse hitched to a wagon as it does to one hitched to a sulky, and in adopting the expression "in harness" as a classification of handicap it was obviously designed to permit the wagon if anybody chose to use it for a race "in harness." The principle of the handicap—to shut out undue advantages and let disadvantages take care of themselves—was left in full scope. The disadvantages of the wagon, as compared with the sulky in those days, were self-acting in precluding its use where the sulky was optional. This construction alone accounts for using the technical wording "in harness" instead of "to sulky," which last was the natural concomitant of "to wagon," the still more arduous classification. Similarly, a three-year-old was then eligible to a four-year-old race or to any other age-classification—unless specifically prohibited by the terms. Modern rules eliminate these privileges, it having been specially enacted that "in harness" means only "to sulky," and that a horse is ineligible to start in a race announced for horses of an older age.

While, up to the present time, these special enactments have seemed almost useless and practically unnecessary, it appears now that mechanical improvements may have entirely reversed the order of advantage as to "rig," which prevailed in the past, rendering the correcting rule quite appropos. It is, at least, an open question whether the wagon is not now the fastest rig, the sulky next and the saddle last in the trotting outfit.

HARK COMSTOCK.

Wonderful Equine Intelligence.

Joe, the wisest horse in the fire department, has been condemned, which means that his days of going to fires are over. In consequence of this news a cloud of gloom hangs over the engine house of Company 7 at Centre and Chambers streets.

Just how long Joe has been a fire horse could not be ascertained yesterday, but it is conceded that he has been "it" in No. 7's house for twelve years. He has taken a prize at the Horse Show, and he holds the fire department record for getting into harness quicker than any other horse that has ever run to a fire. He and Frank, his mate, are big sorrels.

"Joe," said Lieutenant Budnick yesterday, "was a horse that any one would find in love with. If you asked him to shake hands he would raise his right foot and offer it to you just like a dog would offer you his paw. If any of the men belonging to the company was ill that horse sympathized with him by rubbing his head on the sick man's shoulder and shaking his head from side to side."

"And he could count from one to fifty," declared Fireman Sam Adams. "He was just like a circus horse. If you asked him how many days in the week he'd like to work he would paw the ground once. Then, if you asked him how many days he'd like to loaf, he'd keep pawing the ground until told to stop."

"Yes," chimed in Fireman Martin Renck, "and he could add up figures and write down a sum on a blackboard whenever a piece of chalk was placed in his mouth."

"Well," said Engineer Hamper, "Joe can do that even now. I really believe that that horse would make the fire under the boiler if he was only able to strike the match. He lifted wood in his mouth and shoved it into the furnace under the engine when I told him to do it."

"I want to say that Joe can do everything but talk," remarked Fireman Joe Finnegan. "You can ask Gruber, Kraft, Hublitz or any of the other firemen attached to this company. He learned all sorts of tricks, such as sticking out his tongue at folks when told to do it, and when he was asked how little boys laughed he would draw back his lips and show his teeth."

According to Engineer Hamper, Joe loves music, for when the organ grinders come around he shakes his head, keeping time to the melody played, or stamps his feet to mark time.

When an alarm was rung in there was not another horse in the house who acted as quickly as Joe. He never waited for the chain in his stall to drop but stooped and crawled under it. Then he would dash over to the engine, slip his head through the collar and be ready to leave the house in less than five seconds.

The men of the company taught him to pick up his collar from the floor, and place it on his own neck. They also taught him to ring the dormitory bell by yanking a rope with his teeth, but he seemed to take such a delight in rousing the men out of their beds that it was found necessary to remove the bell rope. They taught him to do a cake walk and to wait and to bow and answer questions with a shake of the head. Joe has been placed in a rear stall in the engine-house, where he pines for his mate, who has also been condemned. While Joe will be kept at the engine-house until a new horse is broken in and trained to the sound of the bell, he will occupy his old stall. Later on Joe will probably be sold at public auction.

Patrick Maher, captain of Engine Company 7, who is away on his vacation, was informed of the situation last night by a friend who hopes to save Joe to the company for another year. The captain will probably come home and see what can be done for the old fellow.

The man who is worrying most over Joe is Lieut. Jack Sullivan of Truck 1, whose quarters adjoin those of Engine 7. Sullivan taught Joe to pick out the American flag and the green flag from a dozen flags thrown on the floor. After placing all of the flags on the floor Sullivan would say: "Which is the most glorious flag on earth?" and the horse would answer the question by picking up the American colors in his mouth and waving them. Then Sullivan would tell Joe to pick out the flag that his friend Jack Carroll had been born under, and the horse would raise the green.

From the New York Sun.



PRIZE ENGLISH WORKING SPANIELS.

Government Crop Report.

The monthly report of the statistician of the Department of Agriculture shows the average condition of corn on Sept. 1 to have been 84.3, as compared with 81.5 on Aug. 1, 1902; 81.7 on Sept. 1, 1901; 80.6 at the corresponding date in 1900, and a ten-year average of 78.3.

Except in Kansas and South Dakota, which report a decline of 12 points and 10 points, respectively, in August, no material change of condition is reported from any of the principal corn States, and except those of the South and the State of Michigan, they again report condition averages in excess of their respective averages for the last ten years. Notwithstanding its marked decline in August, Kansas reports a condition of 91, or 25 points above its ten-year average, while Nebraska and Missouri exceed their respective ten-year averages by 35 and 22 points, respectively; Indiana, Ohio, Illinois and Iowa, by 16, 11, 14 and 10 points, respectively, and Pennsylvania, Wisconsin and Minnesota by 6, 4 and 8 points, respectively. The crop, however, is so late that throughout the entire northern portion of the belt predictions of more than an average crop are invariably made contingent on the immediate advent and continuance for some days of the most favorable conditions of weather.

The average condition at harvest of winter and spring wheat combined was 80, against 82.8 last year; 80.6 in 1900, and a ten-year average of 78.9. Ohio, Michigan, Indiana and Illinois report 13, 18, 15 and 21 points, and North Dakota, South Dakota, Nebraska and Missouri 20, 24, 25 and 24 points, respectively, above their ten-year averages. The condition in Minnesota differs only 1 point from the State's ten-year average, while Pennsylvania and California report 7 points below the ten-year average, Iowa 12 points below and Kansas, with a condition of 49, 21 points below the ten-year average of the State.

The average condition of oats when harvested was 87.2, against 72.1 last year, 82.9 in 1900, and a ten-year average of 79.7. While correspondents report the harvesting of an exceptionally large crop of oats, there are indications that the crop will be very deficient in point of quality. This, however, will be more fully reported on in December, when the final returns as to yield per acre are sent in.

Of ten States having one million acres or upward in oats, Iowa alone reports a condition comparing unfavorably with its ten-year average. New York reports the phenomenal high condition of 107, the highest reported from that State since 1877, and 21 points above its ten-year average; Wisconsin 100, its highest since 1882, and 15 points above its ten-year average; Ohio 100, its highest since 1883, and 13 points above its ten-year average; Michigan 99, its highest since 1884, and 17 points above its ten-year average; Pennsylvania 98, its highest since 1885, and 16 points above its ten-year average; Indiana 96, its highest since 1884, and 10 points above its ten-year average; New York 95, its highest since 1885, and 11 points above its ten-year average; Nebraska 86, its highest since 1897, and 20 points above its ten-year average, and Illinois 86, or 6 points above its ten-year average, but not an exceptionally high condition for that State.

Being an old hunter, and knowing the ways of foxes, Norton at the outset recognized the fact that to be healthy, and thus profitable, his foxes must be kept in the best of health, and that they must be kept in the best of health, and that they must be kept in the best of health.

The condition at harvest of winter and spring rye combined was 82.2, against 84.2 in 1900, and 85.2, the highest of the last ten years.

The average condition of buckwheat on Sept. 1 was 86.4, against 91.4 on Aug. 1, 1902, 90.9 one year ago, 80.5 on Sept. 1, 1900, and 84.7 the mean of the averages of the last ten years.

Seven of the principal tobacco States show conditions ranging from one point to fourteen points above their ten-year averages, while 20, Kentucky, New York and Tennessee conditions are two, five and six points, respectively, below such averages.

The average condition of potatoes on Sept. 1 was 80.1, against 94.8 on Aug. 1, 1902, 92.2 on Sept. 1, 1901, 80.0 at the corresponding date in 1900, and 74.6 the mean of the September averages of the last ten years. In every State having 100,000 acres or upwards in potatoes, except Illinois, there was an impairment of condition during August, the decline being 3 points in Pennsylvania, Iowa, Ohio and Minnesota, 4 in Wisconsin, 10 in Michigan, and 18 in New York, while the condition in Illinois is exactly the same as it was a month ago. Every important State except New York shows a condition considerably higher than the ten-year average. In Michigan the present condition is 3 points above such average, Pennsylvania 14, Minnesota 20, Wisconsin 21, Ohio 25, Illinois 29 and Iowa 20, while in New York the condition is 5 points below such average.

There was a decline in the condition of sweet potatoes in August, and in all the principal States, except New Jersey, Virginia and South Carolina, present conditions are below their ten-year averages.

The acreage of clover seed has been considerably reduced since last year, only two of the principal States, Maryland and Ohio, reporting even a small increase. The other important States, except Kansas, in which the State area is the same as last year, report decreases. In California, Utah and Colorado conditions are below their ten-year averages, while all other States, except Maryland, in which the State condition is the same as the ten-year average, report conditions above such average.

In August the condition of hops declined 1 point in Oregon and 8 points in New York and improved 2 points in California, while

the condition in Washington remained unchanged.

Of the States having four million trees and upward in apples, eleven report an improvement in condition in August. All but six of the important apple-growing States report conditions ranging from 7 to 32 points above their ten-year averages; in Ohio the condition agrees with such average, while Indiana, West Virginia, Virginia, Tennessee and Kentucky report conditions below such average.

Reports of the production of peaches, as compared with a full crop in the important peach-growing States, range from ten per cent. in Illinois to ninety-nine in Oklahoma. In all but eight of the States having two million trees and upward in 1890, a production exceeding the ten-year average is probable.

In all the States in which the production of grapes is more than local importance, the condition is equal to, or above, the ten-year average.

There is a decrease in the number of stock hogs now being fattened as compared with the number a year ago in every important hog-raising State except Pennsylvania, where an increase of one per cent. is noted. Reports as to size and weight of stock hogs indicate a condition above the ten-year average in only four of the principal States, Illinois, Missouri, Tennessee and Pennsylvania.

The Government crop report, as figured by Statistician Brown of the New York Produce Exchange, indicates a total yield of wheat, spring and winter, of 600,611,000 bushels. This total compares with an indication last month of 652,500,000 bushels, and with last year's harvest of 748,490,218 bushels. The total indicated wheat harvest has been exceeded only twice in the past in addition to last year—in 1891, when the harvest aggregated 611,780,000 bushels, and in 1888, when it was 675,148,705 bushels.

The current indication for corn is for a crop of 2,495,081,000 bushels, comparing with the Aug. 1 indication of 2,561,490,000 bushels. The prospect is still, however, that the crop of this year will break all records.

The report on oats, which is practically the harvest report, indicates a crop of 868,277,000 bushels, comparing with last year's harvest of 736,808,724 bushels.

A MAINE FOX FARM.

Elijah Norton of Dover, Me., finds foxes a more profitable crop than potatoes or hay, and so he long ago quit planting and hoeing and mowing, and is now devoting his entire attention to raising the sharp-eyed and bushy-tailed little animals, whose fur is in great demand always and everywhere. When Norton began raising foxes he was an experimenter; now he has the business established on a highly profitable basis, and his sunny hillside farm on the bank of the Piscataquis is known as the best-paying piece of land in Maine.

The Norton fox farm is not the first in Maine, for foxes had been successfully bred by a man on Heron Island, Boothbay Harbor, years before the Dover enterprise was thought of. When Norton got ready to enter into the fox business he visited the Heron Island farm, and one on Prince Edward Island, in the Gulf of St. Lawrence, to get points, and also to buy some breeding stock. Then he started in to beat the original fox farmers, and he has succeeded.

Being an old hunter, and knowing the ways of foxes, Norton at the outset recognized the fact that to be healthy, and thus profitable, his foxes must be kept in the best of health, and that they must be kept in the best of health, and that they must be kept in the best of health.

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of course, to eliminate the red and produce the genuine black variety. He bought an Ohio black fox, paying \$300 for it, and this he bred with a common Maine red, then bred their progeny together, and so on. Thus far he has met with flattering success, and he feels confident that his success will continue. Last year he sold a pair of black foxes bred on his farm for \$500, and now has a family of four, which he values at \$1000.

The foxes are fed with scraps of meat, bread, milk and the like, and are all in good health. In summer time they need to be watered, but in winter they quench their thirst with snow. When Norton wants to capture one of his foxes he simply pokes his hand down into a burrow, to which shelter they flee when any one approaches, and pulls the animal out, much as one would take an apple out of a bag. All of his thirty-five foxes seem to know him as dogs know their master, and at feeding time they frolic about him like so many kittens. The beauties of the colony are a pair of twin blacks, now ten weeks old, coal black with the exception of a tuft of snowy white at the tips of their tails, fat, fluffy and as playful as kittens.—New York Tribune.

Butter Market.

There has been a boom in the butter trade that has carried it two cents higher in many markets, and at least 1½ cents higher in Boston. There is an increased demand, owing partly to the return home of those who have been on vacations, and perhaps partly due to the smaller sales of oleomargarine in some places where it was used largely. The stock on hand here has decreased showing consumption greater than receipts, and as business is brisk in the manufacturing districts it may be that more is being used. But if this advance holds out the demand may be less. Extra creamery in assortments, Northern and Western, are sold at 23½ cents. Large tubs Northern New York 23 to 23½ cents, and Western large ash tubs 23 cents. Best marks of Eastern 21 to 22 cents and fair to good 19 to 21 cents. Good first sold readily at 21 to 22 cents and seconds at 19 to 20 cents. Boxes and prints sell well, extra Northern creamery 24 cents, extra dairy 21 to 22 cents, common to good 18 to 20 cents. Extra dairy in tubs, Vermont 21 to 22 cents, New York 20 to 21 cents, first 18 to 19 cents and seconds 16 to 17 cents. Imitation creamery in demand again at 16 to 17 cents and ladies at 16 to 16½ cents. An active demand for renovated at 18 to 19½ cents for best grades and 16 to 17½ for common to good.

The receipts of butter at Boston for the week ending Sept. 13 were 20,607 tubs and 26,509 boxes, a total weight of 1,120,753 pounds, against 1,275,258 pounds the previous week and 1,008,122 pounds for the corresponding week last year. Included in the week's receipts were 14,442 pounds in transit for export, and in last year's receipts were 15,320 pounds for export.

The exports of butter from Boston for the week were nothing, against 98,193 pounds the corresponding week last year. From New York for the week 1125 tubs were exported. From Montreal the exports aggregated 32,349 packages.

The Quincy Market Cold Storage Company reports a stock of 227,108 tubs, against 189,587 tubs last year, and the Eastern Company holds 47,304 tubs. With these two holdings added, the total stock is 274,412 tubs, against 275,685 tubs the previous week, and 218,338 tubs at the same time last year, a difference in favor of this year of 56,074 tubs. It will be noticed that there was a reduction of 273 tubs last week.

Notes from Washington, D. C.

An interesting Australian report recently received shows the possibility of growing small fruits, such as apples, peaches, etc., in small round pots, and it is suggested that such fruit trees might be valuable additions to the school-room, tending to awaken an interest in the children in the growth of our common productions. The grower, W. S. Campbell of New South Wales, describes taking a peach tree, a year old from the bud, which had been grown in a seven-inch pot. After pruning back most of the roots and top, he reset it in a five-inch pot. The following year he reset it to a seven-inch pot, in which it has been growing and bearing in two years. He describes this year's crop as consisting of "eight peaches of average size, each being slightly more than eight inches in circumference, the total weight of the eight being over 2½ pounds. These peaches were beautifully colored, luscious and perfect, far better than many peaches retailed in Sydney at two cents apiece at the time. Every fruit that set ripened, and attributed this to the abundant use of water as soon as the fruit became as large as peas.

When shifting the peach from one pot to another I washed the roots thoroughly, cut about half of them away and pruned the branches a little.

Mr. Campbell also describes an apple tree grown for eleven or twelve years in a twelve-inch pot. This has been repotted every two years with severe root pruning. It flowers beautifully in the spring, and bears from a dozen to twenty fine apples regularly. Both the apple and the peach tree were well nourished, especially during the fruiting period, by applications of weak liquid manure.

A German beet-sugar manufacturer and grower, who has been in Cuba studying her sugar production and the capacity of the island for sugar production, has set forth some facts and observations, interesting alike to his country and to the farmers of the United States.

Sugar, at present, is the principal crop of Cuba. The Cubans are expecting to continue it as their principal crop of the near future, relying upon the increased price which will result through the coming action of the European beet-sugar countries as an outcome of the sugar conference, and hoping for reciprocal arrangements with the United States. The capacity of the island for sugar production is unlimited. Cuba can raise sugar to supply the world. The question, as discussed by the German Economist, is, should she be encouraged to do so. Admitting that the United States does not intend to annex Cuba,—which a good many foreigners do not admit,—and is not therefore legislating as for a part of itself, this gentleman doubts the wisdom of an American course which will further stimulate Cuban sugar, which is even now produced on speculative capital.

Sugar is a general tropical crop. The Philippines also can raise cane sugar for the entire world, so far as soil and climate are concerned. On the other hand, the farmers of the United States can raise sugar from beets for not only the United States, but they could supply the entire world. So could half a dozen other countries. The question then, is, this economist thinks, speaking broadly, whether it would not be a part of wisdom for the United States to induce Cuba to diversify her agricultural prod-

ucts and raise various tropical crops which cannot be grown in the temperate zone. Cuba is exceedingly rich in soil, climate, and while such action might mean something of a hardship on the present sugar mills, etc., it would mean a greatly increased place Cuba on a very much more dependent and substantial basis than at the same time it would allow the United States to produce on her own land the sugar which she consumes.

The ranker-growing legume, such as the cow peas and soy bean, not only add nitrogen to the soil if plowed under or returned to it in the form of manure, but their lower roots penetrate the subsoil to a great depth and draw up considerable amounts of potash and some phosphorus, which then become a constituent of the top-soil and available for surface-feeding plants.

GUY E. MITCHELL.

Literature.

Jennette Lee has written a readable story along the line of heredity in "The Son of a Fiddler." Spencer Gordon, who had a passion for the violin, ran away with an Irish actress, and later, after a son was born, came home to his parents to die. The child inherited his father's weakness—and his love for the fiddle. But young Alec was a good-hearted boy, and showed his generosity when he saved a poor, half-demented woman from a pauper's grave. Later he goes to the city and there he meets his mother—who is still an actress. She is strong as her late husband and son are weak. With her bodily and mental power there is a rich brogue, which denotes her Irish parentage, although she presumably drops this when playing Othello. He obtains a position fiddling in the orchestra, falls in love with a young actress in his mother's company, and after the girl's death, their child is placed in a convent. Alec finally returns to his grandparents' home and marries the sister of the dead actress. Candace, the child, now has a real home. The mother of the young man visits the old home, too, and a Virginia reel brings together a happy family gathering. "The Son of a Fiddler" is a spirited story, with ample dialogue. We obtain a glimpse of stage life, and there are picturesque scenes with the old folks on the farm. The reader's sympathy is likely to be enlisted at the outset, and the ending is not disappointing. [Boston: Houghton, Mifflin & Co. Price, \$1.50.]

Hon. Timothy T. Sawyer, an old and honored resident of Charlestown, has written a book of historical and biographical reminiscences, which has just been published under the title "Old Charlestown." The character of the book is unlike a well-rounded history, and the material included has previously appeared in the columns of the local paper of that district. Mr. Sawyer takes up the different families, many of whom have since moved away, stating in an interesting manner the part they played in the growth and prosperity of that one-time city. The Desires, Loring, Hydes, Tufts, Breeds, Frothinghams, Walkers, Austins, Bridges, Gorhams, Kings, Sweetsters, Sawyers, Hunnewells and others are enumerated, and the different localities in which local celebrities lived are described. George M. Tyler's famous library, George Davidson and his voyage around the world in the ship Columbia, Kosuth's visit to Charlestown and his reception at Mayor Frothingham's, Edward Everett, who was elected governor when a resident of Charlestown, the Dow banquet, given in honor of the man who built the Warren House, and aristocratic Monument square are all adequately treated. A list of prominent public men of Charlestown, including the list of mayors before the district became a part of Boston, are also given. Old and former residents of Charlestown will find a fund of reminiscence in the book. It is supplied with an index. [Boston: James H. West & Co.]

A recent addition to the popular Tion and Country Library of paper-covered fiction is J. R. Aitkin's "Love in its Tenderness." The sub-title, "Idylls of Enochdun," better describes these stories of Scottish pastoral life. They are a reminder of Ian MacLaren's charming stories, although they lack Dr. Watson's poetic touch. The first, "Of a Minister," as it is called, relates the different policy of two clergymen in the same town. The elder preached eternal punishment, the younger, emphasizing Christ's love. The elder failed to attract the laborers of his junior, until the latter wears himself out and becomes ill. Then it is that the older man realizes that he has, after all, misjudged the young man. The latter is sent away for his health by his parishioners. The other stories in the book, "Of Wounded Hearts," "Of an Athlete," "Of a Literary Man," and "Of a Domestic," are in a similar vein. The quaint, sturdy characters of the glen reappear in these stories in all their rugged selfishness. Naturally, the Scotch dialect is used liberally, but wholesome, picturesque stories of this character would not be complete without it. [New York: D. Appleton & Co. Price, 50 cents.]

Hamilton Drummond's story is a tale of the fifteenth century in the time of Charles VII. and Louis, his son. Seignior De Beaufort was king unto himself, a dozen villages called him master, and chateau De Beaufort was a fortified town, and garrisoned as became the house of a man who ruled by love or terror as the mood took him. Such is the hero of this story, who, stern and relentless, was yet merciful to women and children, striving always to do just to his people. He shared alike with them in the times of famine, he opened his granaries and lived no better than the people over whom he ruled. The story of his daring deeds, his courage, defense of the despoiled and helpless is one of absorbing interest. Marmontel, his squire, who was always with his master, was a courageous servant, who always dared to tell the truth. Besides De Beaufort, the hero Marmontel, is the other character of chief interest. The scenes of French life of a suzerainty are particularly interesting, as the writer clearly draws his pictures of the charcoal burners' huts in the forest, the homes of the tillers of the soil and the people in the towns. The character of the peasants is sympathetically delineated, as well as their relations to their seigneur. The calamity of war, of the plague, of witchcraft and of famine, each in turn visits the Seignior

Poultry.

Practical Poultry Points.

A commission dealer in Chicago says that it is not the amount of eggs that are put in cold storage that is holding the price up, as there are but about two-thirds as many, or 100,000 cases, against the usual number of 300,000 cases. The high price of meat created an unusual demand for eggs, and helped to raise prices. Then many came in during the summer injured by the heat and unfit for storage. To this we would add that a great many Western poultry-keepers killed off their flocks or reduced them very much last winter to reduce their grain bill, and we prophesied then higher prices for eggs and chickens this season. They are selling in Chicago at twenty-two cents, against sixteen cents a year ago, and were seventeen cents last April, against fifteen cents a year previous. These, of course, are the retail prices.

At a banquet in Quincy, Ill., one of the speakers told of a boy who about thirty years ago saved up \$5 with which he bought a pair of Cochins and a setting of eggs. His first chicken-house was a discarded rat corn pen with the cracks stuffed with straw, and corn fodder stacked against it on all sides. His next was made from large store boxes. Then he built one from some old lumber that he got for drawing logs to a sawmill. Now he has twenty-four poultry houses, some of which cost as high as \$500 each. He sold his first chicken for \$1 and his first setting of eggs for fifty cents. Since then he has received \$8 per setting. His sales the first year amounted to \$7. Since then he has sold single specimens at \$100 each and breeding pens at \$500, and has sold as high as \$15,324 worth in a year. The first year he exhibited his birds it was at a county fair, where the prizes for fowls did not exceed fifty cents and the totals of all prizes amounted to only \$10, with not over fifty fowls exhibited. Now the prizes for several hundred dollars in prizes for poultry and have from one thousand to 1200 birds on exhibition. Then there were sent from that county to New York about \$200 worth of poultry a year, and now two firms ship more than \$240,000 worth a year, besides large amounts of eggs shipped, and beside the fancy poultry and eggs sent to all parts of the world. The poultry buyers and packers encourage the raising of pure breeds of poultry that they may have them uniform in color and form, and pay more for such birds. The "hen fever," which we thought was so very vigorous, a half-century ago, does not seem to have subsided at all. Where there were then but two poultry papers in existence, there are now over one hundred devoted to the business, besides columns in nearly every agricultural paper in the United States, from which extracts go into nearly every local paper.

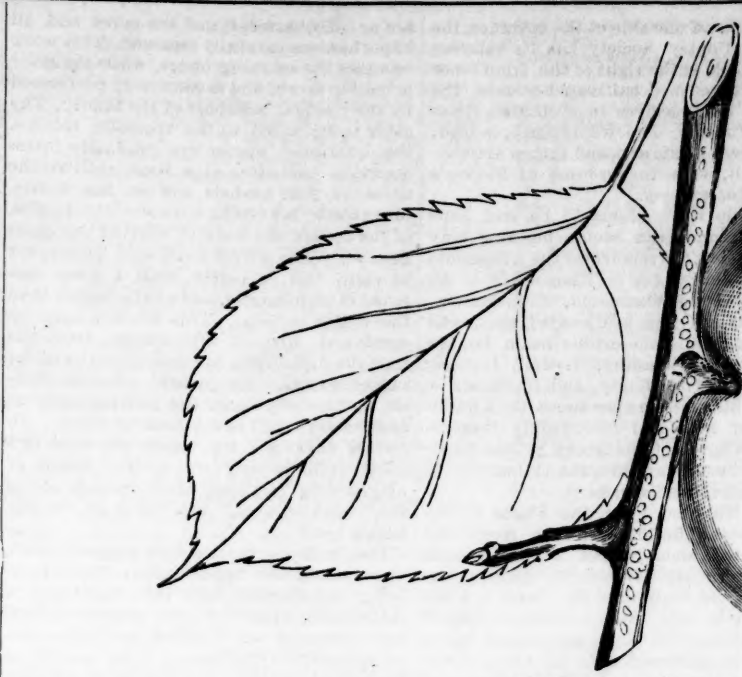
The farmer who wants a few pounds of meat for the family dinner or at the unexpected visit of a friend, cannot get it always, though he owns the "cattle on a thousand hills," or has carloads of fat swine in the pastures. It would be poor economy to kill a whole animal for such an emergency, but a well-stocked poultry yard will soon enable him to obtain almost anything from a two-pound broiler to an eight-pound fowl, and the chances are that it will suit better than the beef or pork. Even if haste is an object and there is little time to kill, dress and cook a bird, there is the egg basket that usually can furnish a meal at a few moments' notice. No long time for their preparation is necessary, and there are few who do not like the produce of the poultry yard. While valuable in the case of such emergencies it is also an important standby as a regular part of each week's ration. We doubt if, at the present time, there is any meat that will give the same amount of nourishment at as little cost as poultry, well-grown, old fowl having first place, turkeys, geese, ducks and young chickens ranking in the order named.

In this decision we do not include the question of palatability, for that each must decide for himself or herself, as also they must decide as to their powers of digesting the various foods. But the coming crop of poultry, if as good as is now reported, will do more to reduce the high prices of beef than any production of the trusts, and if people would only realize the comparative cost and food value of each it would do much more. Of course much is sent to market that has not been well fed, and has too much bone for the meat, and some that have too much fat, though the latter, when well tried out, is better than lard for cooking purposes. But the farmer or poultry keeper who has raised his own birds has them at about half what they sell for in the market, and can have them fat or lean as he likes them.

The goose and the ducks are the gluttons of the poultry yard. The goose will get fat in about four weeks if it is confined in a small coop or box and plenty of food placed within its reach. Not only fat enough to kill, but literally too fat to live. After it is well fattened it begins to grow lean, and soon dies, most probably from a diseased condition of the liver. The duck is not quite so bad as that, but the young ducks are fat enough at eight or ten weeks old, if given all they will eat, and after that point is reached, if they are kept longer, while they may fatten, they will not grow any more, although they will continue to eat as much as before. The old duck will eat about her own weight in grain every day, and if given a chance to go to a pond will not gain in weight at all, or such was our experience with the fat ducks we owned when we were many years younger than now. They were very productive of good, rich eggs, but if not culled at night and until about nine o'clock the next morning, the eggs were to be searched for in the grass, the bushes or the pond, and as likely to be in the water as anywhere. The geese are great grazers, and they will keep down a field of coarse grass or of weeds almost equal to a flock of sheep or goats. Neither ducks nor geese should have the same range as the chickens, as they foul the ground so that the chicken cannot live. In fact, we do not know of anything that will graze on ground the geese have traveled over very much, although the hog might do so. The geese do best in a pen by themselves on rather moist land, but a pond of water is not necessary. They like the vegetation that grows on moist land, and they need shade in hot weather. Their eggs hatch better in a damp place than a dry place.

Hamburg Fowl for Eggs.

The reputation of the Hamburg breed of fowls for egg laying is sufficient to recommend this variety to any one who wishes to make egg-production a feature of the business; but there is a vast difference between accepting the ordinary market Hamburg for egg laying and selecting a few choice birds of the breed and cultivating them for egg



HEATH CLING PEACH.

laying. Every breed improves by cultivation, and the Hamburgs in particular. A good many of the choice Hamburgs have been reared for exhibition, and they have been cultivated more for their penicillings and markings than for their egg producing, and not a few today look upon them as show birds rather than as practical barnyard egg producers. In spite of this, however, good laying Hamburgs have been picked up in many parts of the country as cheaply as other birds, and if they are then deliberately cultivated for a particular purpose they will achieve wonders.

Little attention need be given to the markings of the birds, provided they have the distinguishing traits and appearance of the breed and have a fair record for egg laying. With a few such birds to begin with one may gradually improve them through careful selection and cultivation. They generally breed truer to form and feather than most varieties, and they will also retain through many generations their tendency to lay many eggs.

They can be made so prolific, however, by good care, feeding and selection that their ordinary number of eggs per year can be doubled. The same careful methods applied to any other good egg-producing breed will when given to the Hamburgs make them among the first so far as the number of eggs are obtained in a season. With a little care and attention to their diet and surroundings they can be converted into excellent winter layers, which today are the most profitable of birds.

ANNIE C. WEBSTER.

Pennsylvania.

Poultry and Game.

Receipts of poultry have been light, but the demand is very small. Choice fresh-killed Northern and Eastern hold steady. Choice roasting chickens 18 to 20 cents, common to good 14 to 16 cents. Broilers 16 to 18 cents, common to good 12 to 14 cents. Fowls 14 to 15 cents for extra choice, 12 to 13 cents for common to good. Green ducks easier at 15 cents and geese at 16 cents. Choice pigeons \$1.50 a dozen, common to good 75 cents to \$1.25. Choice large squab \$2 to \$2.50. Western leek chickens 24 pounds or larger, 13 to 14 cents, broilers 14 to 2 pounds the same, 23 to 13 cents, 12 and 13 cents. Fowl choice 13 to 13 cents, common to good 12 to 13 cents, old roosters 9 cents. Turkeys, fancy spring 16 to 17 cents, common to good 12 to 13 cents. Western frozen chickens, choice 14 to 15 cents, common 10 to 12 cents. Broilers, choice 12 cents, common 10 cents. Fowl, choice 12 to 12 cents, common to good 10 to 11 cents. Turkeys 20 to 25 cents. Live fowl in steady demand at 11 to 11 cents, chickens 11 to 12 cents, but need better very choice roasters or broilers to bring more than fowl. Roosters 7 to 8 cents. A few pairs of teal and black ducks have extra, but not enough to make any established prices.

Horticultural.

Orchard and Garden.

As the cane of the raspberry bears but once, the old canes should be cut out each fall and new ones allowed to take their place. This fact was published in Cole's Fruit Book more than fifty years ago, yet many do not know it now, and carefully stake and train the old canes, or layer them down, to get another crop from them. The only way that this can be done is from the new wood which may start out from them, but it is better to cut the old wood out entirely when the fruit has been picked, and also to cut out all feeble or late-starting canes, leaving about the same number of canes, but not more than five or six stalks to a hill. These may be cut back to four or five feet high, and they will throw out new branches, which will give a greater bearing surface the next year. Some varieties may need to be laid down, and to be covered with earth during the winter, and the best way to do this is to loosen the roots from the earth at one side, and cover roots and canes with earth, but few varieties are enough better than those that are perfectly hardy to make this trouble profitable. The old wood is a harboring-place for fungus diseases and for insects, and should be carried away and burned. To get large fruit, manure liberally. Keep the number of canes in a hill down to five or six, and keep out the weeds. The hills should be about three feet apart each way, and in this way they can be kept in the same plantation for several years. When new beds are wanted the roots can be divided or the side branches brought to the ground, pinned down and rooted, to be taken up and moved in the spring. The black raspberry roots better by bringing the tip to the ground than from the lateral branches. A few hundred pounds of good commercial fertilizer per acre applied in the spring increases the size of the fruit, while the coarse manure put on as a mulch in the fall goes more to promote the growth of new wood, which is also important. Often one may sell plants enough to repay the cost of the fall manuring. Maps, the hen man of the Rural New Yorker, says he finds it as easy to grow one hundred bushels of raspberries to the acre as fifty bushels of corn, and the berries will sell for ten times as much as the corn. But it requires a small army to harvest a large field at picking time. He has grown 150 bushels to the acre.

There are some who protect their late fall crops from the early frosts by a tent or a shaped covering of boards over them at night. If one has plenty of boards and enough farm

help this may be a good method, but we think we know a better plan. Almost every one has seen the thrifty housewife protect her house plants, and even the tomato plants in the garden, by the use of their aprons, blankets, comfortable from the bed, or any other covering that would shelter them from the frost. But we think a better method than either is the method of using a cotton cloth over the rows of plants, either in tent shape or by planting stakes alongside of the rows and stretching yard-wide cotton cloth over them. It need not be the best grade of print cloth, but cheese cloth, such as is used for covering the tobacco yards in the Connecticut valley. It is said to be equally as good, and perhaps better, because it does not need to be removed every day. The cloth, if thin, does not restrict the rays of the sun, and possibly may intensify them as would glass, and if there is wind enough to disturb the cloth, there is very sure not to be any frost. We think the use of these thin cloth coverings is not only likely to work a revolution in tobacco growing, but also in market gardening, and possibly in the ripening of small fruits, before the end is reached, and it may result in the making of a grade of cotton cloth not much thicker than so-called cheese cloth, but certainly stronger and possibly more expensive. Or it may prove more profitable to use the sheeting grades than a lighter article. Experiments are needed upon this matter, as also upon the matter of oiling the cloth, as has been practiced by some who have used cotton-cloth coverings for hotbeds instead of the usual glass sash. Many of those who have tried this are enthusiastic in its praise, and the objection to it, that it allows more escape for heat generated within, is met by the reply that at night, when the outside air is cold, the cloth collects dew or dampness, which prevents the escape of heat, while in the heat of the day there is less damage done by the sun than when the plants are under glass and there is a neglect to remove the sashes soon enough, which may happen more frequently to amateurs than to the professional market gardeners and florists, who are as sensitive to any change in temperature as are their thermometers.

Sauerkraut is but another name for pickled cabbage and it is very popular among the Pennsylvania Dutch and the Germans. If President Roosevelt does not like it occasionally, he is scarcely true to his name and ancestry. It is made by trimming all the green outside leaves from the head of cabbage, and then cutting the white center into fine shreds. In places where it is made for sale, this is done by a machine. The trimming reduces a ton of good cabbage to from one thousand to 1200 pounds. The Dutch housewives in Pennsylvania, who make as fine sauerkraut as we ever ate, do this work entirely by hand. And they do not add brine to it after cutting, but sprinkle salt over each layer as it is put in, and trust to the cabbage to furnish enough moisture to dissolve the salt, but we cannot tell the amount of salt used to one hundred pounds of the cabbage. It is not enough to prevent an active fermentation, and a barrel of sauerkraut when ripening has a fragrance or an odor that is not so favorable with many people. But when fit to be placed on the table one has but to avoid too much smelling of it before tasting it, and most of people will pronounce it the best green pickle they ever tasted. One may pack it in anything from a quart jar to a thousand-gallon tank, the only requirements being to salt to the taste and keep it well weighted down, to be always solid and under the brine.

The nurseryman who will select all his buds and scions from young and vigorous trees that are in bearing, and yield well of large, handsome fruit, will deserve a fortune in the business, and we think would gain one if he would advertise "all nursery stock from our orchard that bore so many bushels of first-class fruit last year. Come and see the stock and the orchard from which we took our scions and buds." If we were setting an orchard, we would go far to seek trees of that kind, if we could not do better and do our own budding and grafting from trees that we knew.

Domestic and Foreign Fruit.

Apples are in good supply, the receipts last week having been 17,295 barrels, against 5433 barrels a year ago, but there was a good demand for export, and prices on good lots held steady. Gravenstein \$2.25 to \$2.30 for fancy and \$2 for good. Twenty-ounce \$1.75, Duchess, Pippins and Potters \$1 to \$1.50, common green 75 cents to \$1, farmer's lots, bushel boxes, red varieties 50 to 90 cents and green cooking 40 to 60 cents. Pears are scarce and high. Bartlett's at \$2.50 to \$3.50 a barrel, Clapp's Favorite \$2 to \$2.50. California peas \$2 to \$2.75 a case. Peaches in fair supply, enough, at least, for the demand. Natives are 35 to 90 cents a basket, Connecticut No. 1 yellow, 75 to 85 cents, No. 1 white, 50 to 65 cents, No. 3, 35 to 40 cents. Michigan, bushel basket, \$1.25 to \$1.85. Hudson River, 2-basket carrier, 75 cents to \$1. Hudson River, Georgia carrier, yellow, \$1.25 to \$1.75 white 75 cents to \$1.25. Plums in good supply. Eight-pound baskets, Damson, 35 to 45 cents, larger eating varieties, 25 to 35 cents. California 4-basket crates, \$1 to \$1.75 and prunes the same in small supply. Pineapples in fair supply. Florida smooth Cayenne \$1.50 to \$2.25.

Grapes not as plenty as a year ago. Receipts of domestic were 55,540 baskets, 7849 carriers. A year ago 100,082 baskets,

10,811 carriers. Hudson River carriers Delaware 75 cents to \$1. Concord and Niagara 60 to 75 cents. Worden 50 to 75 cents. Pony baskets, Hudson River, Concord, Worden or Moore's Early, 10 to 11 cents. Western New York, Delaware 13 to 18 cents, Concord 12 cents, Worden 11 to 12 cents. California Tokays \$2.25 to \$2.75 for two-basket crates. Cape Cod cranberries in fair supply, but many small and not well colored, \$4.50 to \$5.50 a barrel, \$1.50 to \$1.75 a box. Blueberries 8 to 10 cents a box for New England, 10 to 12 cents for Nova Scotia. Musk-melons, Colorado Rocky Ford, standard crates \$2 to \$2.25, small crates \$1.50. Michigan 20-pound basket 35 cents. Water-melons nearly done, large \$15 per hundred, medium \$12 to \$14, small \$10 to \$12.

Oranges in light supply with only moderate demand. Late Valencia 150 and 175 counts \$5.25 to \$5.50, 200 and 216 counts \$5.25 and 288 counts \$4.50 to \$4.75. Sorrento oranges 100 counts choice \$4 to \$4.50. Majori and Sorrento lemons 300 counts fancy \$4.50 to \$5, choice \$3.50 to \$4, 300 counts fancy \$3.50, choice \$2.50 to \$3. Palermo Vidella 300 counts \$2.50 to \$3, 300 counts \$3.50 to \$4. Dates 4 cents a pound.

Vegetables in Boston Market.

There is a goodly supply of vegetables offering now a steady demand, with prices varying but little. Beets are 40 to 50 cents a bushel, carrots 40 cents, parsnips 75 to 85 cents and flat turnips 60 to 70 cents. Yellow turnips \$1 to \$1.25 a barrel. Nearby onions in good supply at 75 cents a box. A few Connecticut yellow \$2.25 to \$2.50 a barrel. Leek 40 cents a dozen and chives 75 cents to \$1. Radishes 35 to 40 cents a box. Celery in moderate supply at 65 to 75 cents a dozen. Cucumbers vary from 20 to \$3.50 a box and peppers are 50 to 60 cents a bushel. Tomatoes in rather light supply yet at 50 to 75 cents a bushel, egg plant \$1 a bushel box. White squash \$1 a barrel box, marrow \$15 to \$20 a ton and turban \$25 to \$30. Mushrooms from 50 cents to \$1 a pound.

Cabbages in only fair supply at \$3 to \$5 per hundred, 60 to 75 cents a barrel. Cauliflowers 20 to 25 cents for bushel boxes, 40 to 50 cents for barrel boxes. Lettuce 20 to 25 cents for bushel boxes, spinach 15 cents, parsley 15 to 20 cents, romaine 50 cents, chicory and escarol 25 to 35 cents, mint 25 to 35 cents a dozen bunches and watercress 25 to 30 cents. String beans 75 cents to \$1 a bushel, shell beans \$1 to \$1.25, Sieva beans \$1.25 to \$1.50, flat Lima \$1 and improved Lima \$1.50 to \$1.75.

Export Apple Trade.

The exports of apples for the week ending Sept. 13 included 12,980 barrels from Boston, 19,044 from New York, 12,383 barrels from Montreal, a total of 44,407 barrels. Some week last year shipments were 4008 barrels. Of these 28,296 barrels went to Liverpool, 2747 to London, 6362 to Glasgow and 572 to Manchester. Since the season opened there have been shipped 34,780 barrels from Boston, 34,796 from New York and 25,431 from Montreal, a total of 115,007 barrels. Corresponding period last year 4008 barrels.

A cablegram from Liverpool on Monday says steamer Saxonia selling, \$300 barrels solid demand active for best qualities; Gravensteins \$2.88 to \$4.44, Ramshornes \$2.64 to \$4.20, summer and fall varieties 4 shillings to 10 shillings; many arriving in bad condition; some parcels not realizing freight charges.

Boston Fish Market.

The fish trade is fairly active, with a fair supply and steady demand. Prices on some kinds are lower and on others higher, according to the amount brought in. Market ood are two cents a pound, large 35 and steak 45 cents; haddock 25 to 30 cents, pollock 25 cents, lake and creek two cents, with flounders 4 cents. Striped bass are 16 cents, black bass 10 cents and sea bass 8 cents. Some good mackerel coming now, large at 20 cents each, medium at 14 cents and small at 6 cents. Spanish mackerel are 14 cents a pound, pompano 12 cents, sheepshead 11 and snappers 9 cents. Bluefish are 10 cents and white fish 8 cents. Lake trout 10 cents and sea trout 4 cents. Halibut 10 cents for white, 9 cents for gray and 7 cents for chicken. Snowfish steady at 16 cents. Perch higher at 8 cents for yellow and 9 cents for white. Pickered 12 cents. Sculp 6 cents and tautog 4 cents. Eastern salmon is lower at 25 cents and Western 14 cents. Eels steady at 10 cents, fresh tongues 9 cents and cheeks 7 cents. Frog's legs \$1.25 a dozen. Clams 50 cents a gallon an. In the shell \$3 a barrel. Shrimp \$1 a gallon. Live lobsters 17 cents a pound and boiled 19 cents. Oysters in better demand, mostly at \$1.20 to \$1.40 a gallon.

The Hay Trade.

There have been increased receipts of hay in nearly all markets, but prime and No. 1 are still a little scarce, and are being much sought for. As this is the second year in succession that we have had the largest percentage of the hay of the lower grades, there is no amount of prime old hay to draw from and people must take such as they can find.

Boston receipts last week included 354 cars of hay, of which 23 were billed for export, and 36 cars of straw. Corresponding

week last year, 325 cars of hay, of which 118 were billed for export, and 25 cars of straw. A little increase in receipts would cause an accumulation. Choice and No. 1 timothy barely hold firm, while other grades are over. Choice sells at \$18 to \$19 in large bales, \$17 to \$18 in small. No. 1 \$17 to \$18 in large bales and \$15 to \$16 in small. No. 2 either size \$15 to \$16. No. 3, clover and clover mixed at \$11 to \$12. Long rye straw in full supply, but poor at \$13 to \$14. Tangled rye \$10 to \$11 and oat \$9.

New York received from all sources 8142 tons of hay and 803 tons of straw; corresponding week last year 9078 tons of hay. Exports were 7641 bales. There is a good demand and receipts are taken about as fast as they arrive, and firm at quotations. Choice timothy is \$21, No. 1 \$19 to \$20, No. 2 \$17 to \$17.50, No. 3 \$15 to \$16. Shipping hay \$15 in large bales, \$13 to \$14 in small. Clover mixed \$15 to \$16.50 in large bales and \$13 to \$15 in small, clover \$13 to \$14. Long rye straw, No. 1 \$15, No. 2 \$14.50, oat straw \$8 to \$10 and wheat \$8 to \$11. Brooklyn has had but moderate receipts, and the demand is good. Best grades of timothy and clover are in demand. New hayrivers in good condition. Choice timothy \$18.50 to \$19, No. 1 \$18, No. 2 \$16, No. 3 \$13 to \$14. Clover mixed, No. 1 \$15 to \$16, No. 2 \$13 to \$14. Clover, No. 1 \$14 to \$15 and No. 2 \$11 to \$12. Rye straw, No. 1 \$15 to \$16, No. 2 \$14 to \$15; tangled \$8 to \$9, oat \$8 and wheat \$7 to \$10.

The Hay Trade Journal gives highest prices at \$21 in New York, \$19 in Boston and Brooklyn, \$17.50 in Philadelphia, \$17 in Baltimore, \$16 in Richmond and Pittsburgh, \$14.50 in New Orleans, \$13.50 in Nashville, \$12.50 in Chicago and Louisville, \$12 in Cincinnati and Memphis, \$11 in Duluth, and \$9.50 in Kansas City.

The Montreal Trade Bulletin says that "a considerable quantity of new hay has been received here, sales of which have been made at \$7 to \$7.25 in carload lots on track, resales of which are reported at \$7.20 to \$7.75 in a jobbing way." The Provinces of Quebec and Eastern Ontario have a large hay crop this year, but not as heavy as last year, when exports were nearly 400,000 tons, with a surplus left over that may bring them as high this year if there is a demand for them. It has been suggested that the Government offer a bounty of \$1 a ton on all hay, as selling hay reduces the fertility of the soil more than almost any other crop.

How Industries Are Distributed.

The Census Bureau has issued a bulletin on the localization of industries, which shows that, measured by the value of products, more than eighty-five per cent. of collar and cuff manufacture is carried on in Troy, N. Y.; more than sixty-four per cent. of the oyster-canning industry in Baltimore; more than fifty-four per cent. of the manufacture of gloves in the adjoining cities of Gloversville and Johnstown, N. Y.; more than forty-eight per cent. of the coke manufacture in the Connellsville district, Pennsylvania; more than forty-seven per cent. of the manufacture of brasses in Waterbury, Ct.; more than forty-five per cent. of the manufacture of carpets in Philadelphia; more than forty-five per cent. of the manufacture of jewelry in Providence, R. I., and the adjoining towns of Attleboro and North Attleboro, Mass.; more than thirty-six per cent. of the silverware manufacture in Providence, R. I.; more than thirty-five per cent. of the slaughtering and meat-packing industry in Chicago; more than thirty-two per cent. of the manufacture of plated and britannia ware in Meriden, Ct.; more than twenty-four per cent. of the agricultural implement industry in Chicago, and more than twenty-four per cent. of the silk industry in Paterson, N. J.

The number of wage-earners engaged in slaughtering and meat packing in South Omaha, Neb., constitute ninety per cent. of the total number employed in all industries in the city. The iron and steel industry formed eighty-nine per cent. of all the industries in McKeesport, Pa.; the pottery industry, eighty-seven per cent. in East Liverpool, O.; the fur hat industry, eighty-six per cent. in Bethel, Ct.; the glass industry, eighty-one per cent. in Tarentum, Pa.; the cotton goods industry, eighty per cent. in Fall River, Mass.; the boot and shoe industry, seventy-seven per cent. in Brockton, Mass.; the silk manufacture, seventy-six per cent. in Wrentham, N. J.; glove manufacture, seventy-five per cent. in Gloversville, N. Y.; jewelry manufacture, seventy-two per cent. in North Attleboro, Mass., and the collar and cuff industry, sixty-nine per cent. in Troy, N. Y.

The exports of dairy products from New York last week included 1125 packages of butter to London, 1950 boxes cheese to Liverpool, 850 boxes to Hull, and three boxes to South Africa, a total of 2863 boxes of cheese.

The exports from the port of Boston for the week ending Sept. 13 included 49,416 pounds cheese. For the same week last year the exports included 98,185 pounds butter, 303,549 pounds cheese and 38,000 pounds oleo.

The total shipments of boots and shoes from Boston this week have been 75,000 cases, against 93,751 cases last week; corresponding period last year, 87,928. The total shipments thus far in 1902 have been 2,984,708 cases, against 3,368,367 cases in 1901.

Delaware took its name from the river which fronts it, and this was named from Lord Delaware, who died off the coast in 1630.

The exports of live stock and dressed beef last week included 1580 cattle, 7588 quarters of beef from New York, 683 sheep, 822 quarters of beef from New York, 900 cattle, 483 sheep from Baltimore, 356 cattle, 280 quarters of beef from Philadelphia, 341 cattle, 3845 sheep from Montreal, a total of 7790 cattle, 4991 sheep, 16,192 quarters of beef from all ports. Of this, 3466 cattle, 10,104 sheep, 10,373 quarters of beef went to Liverpool, 2362 cattle, 3612 sheep, 4494 quarters of beef to London, 701 cattle, 101 sheep to Glasgow, 220 cattle to Bristol, 300 quarters of beef to Manchester, 1200 quarters of beef to Southampton, 32 cattle, 175 sheep, 125 quarters of beef to Bermuda and West Indies.

The exports from Atlantic ports last week included 307,823 barrels of flour, 4,193,300 bushels of wheat, 34,221 bushels of corn, 601,266 bushels of oats, 31,226 bushels of rye, 625,800 pounds of

pork, 10,687,573 pounds of ham and bacon, 9,522,161 pounds of lard. Since July 1, 1902, 3,328,936 barrels of flour, 34,600,854 bushels of wheat, 711,088 bushels of corn, 1,579,692 bushels of oats, 664,435 bushels of rye. All of these show a decrease from last year. Since Nov. 1, 1901, 27,463,400 pounds of pork, 588,496,556 pounds of ham and bacon, 46,133,221 pounds of lard.

The world's exports of grain last week include 9,281,142 bushels of wheat from five countries and 1,654,312 bushels of corn from four countries, of which 5,444,142 bushels of wheat and 91,612 bushels of corn were from the United States.

The visible supply of grain in the United States and Canada on Sept. 13 included 22,056,000 bushels of wheat, 2,264,000 bushels of corn, 5,214,000 bushels of oats, 706,000 bushels of rye and 631,000 bushels of barley. Compared with the previous week this shows an increase of 635,000 bushels of wheat, 1,122,000 bushels of oats, 119,000 bushels of rye and 368,000 bushels of barley, with a decrease of 299,000 bushels of corn. One year ago the supply was 30,872,000 bushels of wheat, 12,502,000 bushels of corn, 8,475,000 bushels of oats, 1,619,000 bushels of rye and 1,125,000 bushels of barley.

The supply of eggs continues liberal and prices remain about steady. Nearby and Cape fancy sell at 28 cents, but fresh Eastern and Northern sell at 25 cents, fair to good 19 to 21 cents. Michigan fancy candled 28 to 21 cents. Western selected 19 to 19 cents, fair to good 17 to 18 cents. Western dirties candled 15 to 16 cents and uncandled \$3.50 to \$4 a case of thirty dozen. The stock in cold storage on Monday was 178,085 cases, against 181,764 cases a week ago, and 164,499 cases a year ago.

Beef is rather easy, but with prices unchanged nominally: Extra sides 11 to 12 cents, heavy 9 to 11 cents, good 7 to 8 cents, light grass and cows 5 to 6 cents, extra hinds 15 cents, good 10 to 12 cents, extra 6 to 8 cents, extra fore 9 cents, heavy 8 to 8 cents, good 7 cents, light 4 to 6 cents, backs 7 to 11 cents, rattles 4 to 7 cents, chucks 3 to 9 cents, short ribs 10 to 12 cents, rounds 7 to 10 cents, rumps 8 to 10 cents, rumps and loins 12 to 19 cents, loins 13 to 22 cents.

The mutton market is a shade firmer, if anything, though little change can be noted: Spring lamb 6 to 9 cents, fancy 9 to 10 cents, yearling 5 to 6 cents, mutton 5 to 6 cents, veals 10 to 15 cents, and Brighton 10 to 11 cents.

State and County Fairs.

STATE AND GENERAL EXHIBITIONS.

Chicago Live Stock	Nov.
Illinois, Springfield	Sept. Oct.
Massachusetts Horticultural	Sept. 26-Oct. 1
North Carolina, Raleigh	Oct.
Pennsylvania Horticultural, Philadelphia	Nov.
Philadelphia Live Stock	Oct.
St. Louis, St. Louis	Oct. 2-9
South Carolina, Columbia	Oct. Nov.

MASSACHUSETTS.

Amesbury and Salisbury, Amesbury	Sept. 23-25
Bristol, Taunton	Sept. 23-25
Hamden East, Palmer	Sept. 23-25
Hampshire and Franklin, Northampton	Oct. 1-2
Hillsdale, Cummington	Sept. 23-24
Hingham, Hingham	Sept. 23-24
Housatonic, Great Barrington	Sept. 23-25
Manufacturers' Ass'n, North Attleboro	Oct. 9
Weymouth, South Weymouth	Sept. 23-25
Worcester West, Worcester	Sept. 23-25

MAINE.

Madawaska, Madawaska	Oct. 18
Northern Cumberland, Harrison	Oct. 7-8
Cumberland Farmers' Club, W. Cumberland	Sept. 23-24
Gray Fair Association, Gray Corner	Sept. 23-24
New Gloucester and Danville, Upper Gloucester	Sept. 24, 25
Eden Agricultural, Eden	Sept. 23-25
Kennebec County, Readfield	Sept. 23-25
North Knox, Union	Sept. 23-25
Linoxville County, Danversville	Sept. 23-25
Bristol, Bristol	Sept. 23-25
West Oxford, Fryeburg	Sept. 23-25
Androscoggin Valley, Canton	Sept. 23-25
Northern Oxford, Andover	Sept. 23-25
West Penobscot, Exeter	Sept. 23-25
Piscataquis County, Foxcroft	Sept. 23-25
Sagadahoc County, Topsham	Oct. 1-4
Shapothet and Acton, Acton	Oct. 7-9

NEW HAMPSHIRE.

Rochester, Rochester	Sept. 24-25
NEW YORK.	
Cayuga Co. Agricultural, Cayuga	Sept. 23-25
Dutchess Co. Agricultural, Poughkeepsie	Sept. 23-25
Franklin Co. Agricultural, Malone	Sept. 23-25
Brookfield-Madison Co. Ag. Fair, Pk. B'n	Sept. 23-25
Monroe County Agricultural, Herkport	Sept. 23-25
Oswego County Agricultural, Rome	Sept. 23-25</

MASSACHUSETTS PLOUGHMAN

Why should a peace-loving press poke fun at the report that French gentlemen are looking toward the satisfaction of outraged honor with wax bullets? Has the world lost all respect for the saving power of imagination? Has it altogether lost sight of the fact that no weapon is so deadly as the one that is supposed to be harmless?

Every year a mathematical genius in London marshals in review the prices paid at auction for works of art during the preceding season. The souls of departed artists must take a certain interest in watching their records, even if the pleasure is handicapped by the fact that somebody else gets the price.

Now that the screen of trees that but lately extended its gracious shelter between pedestrians on the mall and the houses on Commonwealth avenue has been so decidedly lessened, those who pass that way have an unexpected opportunity to realize that the houses are ugly. Most of those that are not ugly are beautified by ivy. The moral is obvious.

Budapest, Hungary, has issued its invitations for the third international congress of students, the twentieth century version of the student pilgrimages that marked the closing years of the Middle Ages. There are more students in these days, and the purpose of the pilgrimage—"to unite the students of all countries of the world in a common effort toward noble and highly useful ends"—means a great deal more to the greater bulk of other students who can't include themselves.

The American embassy has dealt a blow to the dream of many an American of English ancestry, real and imaginary, in its recent circular regarding unclaimed estates and fortunes. The vision, however, is too far to be dismissed without effort; the self-appointed agents of these imaginary acres in the old country will probably continue to reap their yearly harvest from the savings of the credulous on this side of the water.

When the time is actually ripe for the much-discussed suffrage it is probably safe to predict that womanhood will be much more a unit in demanding it. The anti-suffragists have so well tempered their steel in successfully opposing the desires of their discontented sisters that they will make a strong fighting body if the time should come when all women are one in wishing to vote.

Washington's education, according to a recent lecturer, consisted, first, in making his own school books; second, in forcing everybody he knew to teach him; third, in doing everything in the best way possible. Here, perhaps, is a suggestion for the persons who are endeavoring to find a way of simplifying the education which the modern school offers to the modern schoolboy. The schools can very well afford to make his schoolbooks, but the problem which has yet to be solved is how to teach him to force everybody else to teach him.

The Lima bean is grown for home use in nearly every State in the Union, but only in California is it grown to any extent as a commercial product. In Ventura County there are said to be now between forty thousand and fifty thousand acres in Lima beans, and this is much less than in former years, owing to low prices previous to 1900, and to three seasons of drought on land not irrigated, also to land formerly in this crop now being given up to sugar beets. They do not grow them on poles, but allow them to pile up along the rows, and when they ripen in September they are harvested by sleds with knives attached to the runners, or by modern wheel cutters. It takes from two to four weeks to cure them, and then they are put through the steam thrasher, or are tramped out by horses and carts driven over them, while the vines are kept turned over and moved with pitch-forks. From 1200 to 1500 pounds, or two hundred to 250 bushels to the acre, is called a good crop in a favorable season, but two thousand pounds per acre have been grown. The estimated yield last year was 350,000 sacks of eighty pounds each, and it is thought the crop this year will equal if not exceed that amount.

Boston is not the only city that is suffering for a lack of good schoolhouses. It is true that there are many scholars here who have to find accommodations in halls, hired temporarily, or in wooden buildings outside of the regular schoolhouses, but nearly all are provided for in some way, and the work of erecting new schoolhouses seems to be going on, even though their capacity does not increase as rapidly as those who are to occupy them are increasing. But the Greater New York is much worse off. It is estimated that there are from sixty thousand to eighty thousand who can attend only "half-time classes," that is two separate classes a day in the same room, and this in spite of very much overcrowded schoolrooms, transporting children from the overcrowded districts to distant points, hiring halls and tenements for schoolrooms. The Tribune says that new school room has been provided for 800 children, while the school population has increased 35,000. There are new schoolhouses being built which are expected to accommodate all the children now registered, but it will be two years before they are finished, and if the scholars increase 35,000 a year, they will be worse off than now. They need men like the army officer who was told to bridge a certain river, and to go to the engineer for plans. He reported the next morning at daylight, "General, the bridge is built, but I don't know whether the plans are done or not."

Canadian orators are urging the imposing of a tariff upon the \$65,000,000 worth of goods that are yearly imported from the United States, and claim that people from the Provinces are coming to this country to make the very goods that are afterward sold in the Provinces though produced by Canadian labor. We are willing to acknowledge the truth of this, but Canada cannot regret this condition more than do the American working-men. If a Chinese wall separated us from the Provinces we could better endure the loss of their trade and the importation of their products than we can the importation of their cheap laborers. Every man who can use a saw and a hammer comes here as a carpenter. If he cannot, he and all his family from six to sixty years of age seeks work in a mill. Their earnings are saved, for which we do not blame them, and in a few years they go back to settle on the farm and produce agricultural products to compete with

us in the markets of the old countries and even in our own cities. But in reference to manufactured goods, if they will not buy from the United States, they must buy from us the machinery used in making them. They will need to call back the skilled workmen, who have learned their trade here, and they will have to pay the wages that are paid here before they can successfully rival us, which will be the hardest blow of all. And if we lose their trade, perhaps we can afford it better than they can to lose our custom. We are willing to acknowledge the Provinces as powerful rivals for the business of the world, and they may be gaining on us, but to attempt to shut us out of it may be as disastrous to them as to us.

As we have written upon the congested conditions of the schools in some of our cities, it may not be amiss to call attention to a reverse condition in some of our country schools. We think schools can be found within ten or twelve miles of Boston where there are scarcely a dozen scholars, and in the hill towns of Massachusetts or among the mountains of New Hampshire, and probably in other States, there are schools with half that number or less. The school committee or other town authorities think that warrants the employment of a teacher who will work for low wages. This means usually one who is inexperienced and often incompetent. In some places the small sum of money at their disposal means a shortening of the school terms, and less opportunity for the children to obtain the education that our free schools were intended to provide, and yet it often means a greater expenditure for each pupil than for those who have the better opportunity in the larger schools and better-paid teachers in the village. In some towns they have overcome this difficulty by closing such schools and providing free transportation from the outlying districts to the larger schools near the centre of the town. Where a trolley line runs through the two points this is a simple matter, as the electric roads are usually willing to sell scholars tickets at reduced rates, or about half the usual fare. In most other places can be found some man whose age or infirm condition prevents him from doing hard labor in the field, but who is willing that his horse shall earn a little something by semi-daily trips to the centre. Many other towns might well follow one of these plans, and there is more reason for it this winter, as the price of fuel makes it expensive to keep these small schoolrooms comfortable, and the larger rooms cost no more to heat if a few more scholars are in them. This would give the scholars in the thinly settled districts equal opportunities with those in the village.

Visiting Among the Farmers.
Although the summer season is a busy time for the farmer, and there is usually enough to do, yet there will occasionally be days when work is not pressing, and he can, if so inclined, get away from home for a brief outing and sight-seeing. And it will do him good to get out among his neighbors and townspeople, or farther away, as opportunity may offer, for the special purpose of seeing what is being done by others in the lines of his own business. There is not as much of this visiting among farmers as there should be. The farmer who always remains at home and lives, as it were, within himself, will in a measure lose his connection with the great moving world outside, and will hardly know where he belongs. I do not believe in a farmer spending too much time on the road, as that will seldom advance his interests at home, which should be paramount in all things, but with work kept well in hand, it will do him good to look around and find how others are prospering. Otherwise how shall he be able to measure his own success or see wherein he could do better? If he is a good, thrifty farmer he will find instances enough wherein others might, in his opinion, do better for themselves and the common occupation in which they are engaged, and possibly there occasionally will be others from whom he can derive instruction and help. If a farmer excels in any one particular branch of agriculture, there may be others like-minded, and in such cases a comparison of methods and results may prove of much value to them all. No one man can understand everything best, and no one man can accomplish everything in the best manner, but with the united and hearty co-operation of two, better results may sometimes be obtained for both. Hence this practice of going among the farmers, observing what they are doing and how they are doing it, will often prove an inspiration for better work at home. When on the road, a farmer should be a keen observer of all about him. How much can be learned in this way, even while passing through the country on the cars, although this is not the best view-point for the purpose. How often is it possible to get a pretty good idea of the character and condition of the farmers along the way by a passing glance. The buildings, the fences, the condition of the fields and crops, the herds of cattle and flocks of sheep or other kind of stock, as well as many other things, catch the quick eye of the observing traveler, and at once he decides in his own mind, and pretty correctly, too, about the character and standing, agriculturally, of these tillers of the soil. If a farmer is a dairyman, then he should keep a sharp lookout for the others, and the best ones of like occupation. There may be some idea or suggestion caught up in this way that will prove of much value in his own work. Is there a creamery or cheese factory on the route, take it in, compare results with the same work on the farm, and so determine wherein either excels the other in practical results. Should there be a fine herd of cows on the way, of whatever breed, pay it due respect, as there will very likely be some point worthy of attention. A nice field, a fine farm crop, a well-kept orchard or garden, are pleasant to look upon and may have a lesson of value for the observer. Do not pass the farmer's family by without a pleasant greeting and a word of cheer and helpfulness. In this way these days of outing may be made very pleasant and profitable to the farmer and those with whom he comes in contact. Try this, brother farmers, and see if the plan does not work well.

Feeding Cattle This Winter.
Not a few of those who will enter for the first time, on account of high prices for meat, the difficult work of feeding cattle in winter will meet with failure. The man who thinks that winter feeding of cattle for profit is a snap will unfortunately find his mistake when too late. One may feed the cattle all right, and keep them in good health, but the question is how to do this so that every pound of meat made will yield a solid profit above the cost of food. That is

the problem which feeders have to solve through many years of hard experience, and often with bitter failure.

It requires a good deal of work, study and experience to carry out cattle through the winter successfully, and find in the end that it has all been well paid for. This fact should not, however, deter one from undertaking the work who has carefully bought this knowledge through experience and practical test. I have fed cattle for twenty years past, and I have lost money some years, but in the long run my profits have been uniformly satisfactory. It can be done in some years so that one is surprised at his own success.

After the feeding comes the equally difficult process of selling to the highest market. If you have fed properly your cattle is worthy of the best market. Leave the scalpers and agents who go around the country in the interests of shrewd dealers to buy up the poor stock, but ship your animals to responsible shippers and dealers, who will treat you honestly. The scalpers expect to make their profit after you, and so they will never give you full prices. Leave them alone, and above all raise better beef than they generally handle.

Keeping Stock Off the Mowing Fields.

A very important help in keeping the mowing fields from deteriorating in yield of hay is not allowing stock to run upon them at any time of the year. The old custom of feeding meadows in spring has long been done away with, at least in the dairy regions, but this is not the case in autumn.

Of course some do not allow this, but the practice is still followed by far too many for the good of their farms. To be sure there is quite a temptation when there is a considerable growth of grass in the meadows to turn in the cows and get the benefit of it in the increased flow of milk that would follow, but when the damage to the fields in consequence is taken into account, it will usually be found to be a losing business.

If there is a large second growth of grass, which there should be on well-cared-for meadows, it better be mowed and fed to the cows, either green or made into hay, and early enough in the season to allow of a sufficient amount to come on and cover the ground completely before cold weather. This winter protection of the roots of the grasses is of the greatest importance, and should be encouraged to the greatest practicable extent, at least in the portions of the country where the winters are long and severe, or where there is more or less an absence of snow.

The mowing fields will hold out much better in production when not fed in autumn, other things being equal. I have known farmers, as soon as a field was cleared of the hay, to turn in the stock and let them run during the autumn, keeping the grass fed down close so there would be nothing left for winter protection. This is one of the worst practices that could be followed.

Young stock should usually do very well in the pasture until the season is well advanced, but it is necessary to pay extra attention to the cows in autumn if a satisfactory yield of milk is to be expected, but this should be done by giving feed at the barn or in a lot suited to the purpose. Occasionally farmers sell hay to quite an extent, and as an aid to keeping up the yield from their meadows under these conditions, are very careful not to have them fed at all. This method will do for a time, but if the practice is beneficial under these circumstances, it should certainly be so where all of the crops are fed on the farm and the manure made the best use of.

Another thing, aside from the close feeding of the grass, is the injury that is very liable to result from the trampling of the cattle, and especially when the soil is wet or soft. This, with the other reasons advanced, should be sufficient proof that it is not for the interest of the farmer to graze his mowing fields in autumn.

Summer Helping.

Though the story of the beginning of Fresh Air Fund work has often been told, it is worth repeating, because of its suggestiveness, as well as by reason of its intrinsic interest. Some twenty-four years ago there appeared in the columns of a Boston newspaper this simple query: "Have you helped anybody this week?" The question attracted attention, and very soon a thoughtful and philanthropic man began to answer it by a scheme to give little children, whose playground was on city pavements, and overworked mothers, whose horizon was bounded by brick walls, a chance to spend the day in green fields.

From this simple desire to make life in the summer less burdensome to those in city pent grew the admirable work Rev. D. W. Waldron has since so ably conducted. "Have you helped anybody this week?" There are many who have, and many more in the affirmative. A simple one is to send a check to Mr. Waldron; one less simple is to talk to the rather uninteresting-looking woman who sits alone on the hotel piazza and seems to have no share in the sprightly conversation and alluring plans going on all about her.

"I find the people in this house very dull," said a good lady to a new arrival. A little observation on the part of the newcomer, however, developed the fact that the first speaker had not tried at all to discover what topics were of interest to those with whom she might be chatting, but had instead dubbed them all "dull," because, forsooth, they had not talked about the matters most interesting to her.

The lad was learning to play golf, and, of course, lost many balls, so many, indeed, that his little stock was soon exhausted and he had to stop his game. Then a kind man looking on said, quietly, "I've two or three old balls he can have, and welcome." Immediately the lad was joyful again. "Have you helped anybody this week?"

The Passing of Picturesque Boston.

While it is sincerely to be hoped that the rumor of the proposed destruction of the Grundmann studio building may prove to be ill-founded, the mere story will excite in many a breast great disquiet at the loss of all of Boston's most picturesque and distinctive buildings are to fall beneath the scythe of progress. The Grundmann studios, with their skylight tops and their hollyhock and clinging-vine decorations, stand out very attractively on a rather gloomy bit of Back Bay street, and delight in the course of the year many hundreds of strange eyes. Then, too, the building shelters Copley Hall, famed throughout New England for noble proportions and good light, very favorable for picture shows. Surely it is a great pity if this admirable convenience were to be sacrificed for a "modern structure."

Within the workshop portion of the house is the atmosphere of real Bohemia. Big artists and little ones elbow each other in the narrow halls, and all are friends together. Downstairs, on one side of the entrance, the ingenious Copley Society has its rallying ground, while at the right of the front door the select body of cultivated women, the Copley Club, receives in a chastely decorated parlour. The whole place, indeed, is given over to the arts and things artistic. To lose it, were to lose one of Boston's choicest possessions.

But while there seems to be still hope that the Grundmann Studio building may not be doomed, the removal of the Athenaeum from its hallowed site on Beacon hill is an accepted, though lamented, dispensation. More light and more space are needed, the result being that the classic shades made famous by Emerson, Channing, Lowell, Holmes, Longfellow, Hawthorne, and hundreds of lesser lights, will be abandoned for a building brand new and thoroughly "up-to-date." What the Grundmann Studio building is to the new art life, the Athenaeum is to old literary tradition here.

Music Hall has gone, the Floras of the Horticultural Building are no more, the Museum will soon be but a memory, and only the utmost devotion to history has saved the Old South Church. Does not the eagerness to raise these picturesque bits of old Boston before an inconsiderate spirit much to be regretted? We in America frequently lament that we have no background of fine old buildings to show our visitors. The present indications are that we never shall have. As soon as a building gathers sufficient associations to render it interesting historically, and becomes far enough removed from raw youth to be thoroughly picturesque, it is destroyed to "make room for a modern structure."

Surely, there should be enough other space in the city for such new buildings as are necessary to one's fast-developing commercial life. Why do not the people who have infinite leisure point out through the daily press the vacant spots available for building sites, and at the same time form themselves into a society to preserve such buildings as are distinctly worthy of preservation? Old Boston would certainly be the richer and new Boston probably none the poorer for such action.

The Home Dairy.
The tendency to return once more to home dairying, instead of selling the milk and cream to large separator companies, appears to be the result of recent invention and perfection of small separators operated by hand. It is possible with these for the farmer and dairymen to handle his own product, make his own butter as formerly, and sell it to the market he considers best. It is also tending to increase the size of the average dairy. With a hand separator the farmer can handle more cream and butter than he could when dependent entirely upon old-fashioned dairy methods. It may be that the large creamery companies and large co-operative farmers' creameries will not be greatly affected one way or the other by this, as the supply of milk and cream is steadily increasing all over the country, but certainly it will make a change on the small farms and dairies. The question which must be considered of the most importance is whether the farmer operating at home can keep up the quality of his butter, or will it degenerate and be reduced in value by the removal of cream, which are both separated by passing the thoroughly cooked fruit through fine sieves. The centre of the industry is at Waynesboro, Franklin Co., Pa., and at York, Pa.

The German name for apple butter is "lotwerg," but in Pennsylvania German it is called "lotwarrick,"—a name said to be in use on the Rhine above Coblenz. The Bohemian name is "lektavar," the Danish "latwerg" and the Swedish name "latwerg." Cider soap is made of sweet cider, the day it comes from the mill. Equal portions of cider and water are mixed and brought to a boil, a thin paste of flour and sweet cream is added, and it is served with toasted or plain bread. "Mole cider" is cider thickened to the consistency of syrup, with a paste of milk and beaten egg. This was formerly served at "apple-butter bees" while the boiling progressed. In former years very large quantities of apple butter were consumed on all Pennsylvania farms, but its place has now largely been taken by the canned fruits.—New York Tribune.

Experimental Grape Tests.
That our grapes are susceptible of a good deal of improvement yet is not questioned, and the commercial vineyardists have not shown as much progressiveness as the apple and orange growers in making tests with grafted vines. Nearly all of the large growers have been apparently satisfied to plant the vines of acknowledged good varieties, and let them mature their crop. In nearly all other lines of horticulture choice varieties of fruits are grafted on hardy, vigorous stocks of some other variety, and the result has been to increase the size and quality of the fruit crop. Only comparatively few small growers of grapes have applied this same method to grape vines. There is, however, urgent need for more experiment in this direction. It is well known that some of our vines produce hardy stocks, which are not easily injured by weather or insects, but their fruits are not of the choicest for market purposes. On the other hand we have some very choice grapes which cannot stand much injury without dying or losing their value as producers. It is in the hope of improving commercial grape growing, through experimenting in this way that the New York Agricultural Experiment Station has sought to co-operate with vineyardists in making tests of grafting. Some work has already been accomplished in this line, but further experiment is desired in grafting such grapes as the Rogers hybrids, the Vergeuses, the Campbell, the Barry, the Herbert and other sorts. These should be grafted on hardy stocks to see if a distinct improvement can be obtained in any way. In several vineyards considerable success has been obtained through this method, and excellent results obtained in according the different varieties to their new home.

Pennsylvania Apple Butter.

A product which was brought to America by the Pennsylvania German farmers is apple butter. Its use has extended until now it can probably be found on sale in all the large cities of the country. Since the product is quite different from that which bears the same name in New England and New York, we will describe the manner of making it on farms. A good quantity of sweet cider, made only the day before, is the first requisite. This is boiled down to one-half its first volume. This work is commonly done in the open air, in large copper kettles, holding thirty gallons or more, and over a wood fire, made under the shade of a large tree. While the cider is boiling, well-ripened, sweet apples

are pared, quartered, and the cores and all imperfections carefully removed. This work occupies the morning hours, while the cider is boiling down, and is commonly performed by the younger members of the family. The older being boiled to the requisite volume, the quartered apples are gradually introduced, a bucketful at a time, until all the three or four bushels are in the kettle. Meanwhile, beginning with the introduction of the apples, the work of stirring the mass goes on. The stirrer has a long handle, six or eight feet in length, with a piece fastened at right angles, and a little higher than the kettle is deep. This stirring must be continued without intermission from the time the first apples are introduced until the butter is done. Frequently, when the boiling is carefully done, the stirring goes on from noon until ten o'clock at night. In former days this was made the time of a great frolic among the young people of the neighboring families, after the manner of the "huking bees," this being an "apple-butter bee."

Finally there results a dark-colored, sweet, viscid mass, the apple butter, the volume being considerably less than half that of the original cider. A good quality of butter is secured when fifteen gallons are derived from forty gallons of cider and three bushels of apples. The test as to whether the butter is done is made by taking some of the mass from the kettle and placing it upon a white plate, when, if the cider does not separate from the solid mass, it is considered done, and is then removed and placed in earthenware crocks, which, when cooled, are carefully tied over with paper and placed in the garret or in a warm closet, where the butter will keep for years, although in time the water will all dry out and the butter will become very hard. It can be prepared for the table, however, by the addition of needed water.

If both apples and cider are sour they may be necessary to add sugar, but if they are sweet no sugar is needed. Some use spices, especially cinnamon, as a flavor, but the best butter has no flavor except of the apples or some other fruit, as pears or quinces. An exceedingly rich butter is made where half apples and half pears are used.

Apple butter is an exceedingly healthy food, being simply the apple and its juices preserved by long boiling. It is an appetizer and an aid in the digestion of fatty foods; hence on farms it is much used at the time when sausage and fresh pork are eaten. On some farms it is eaten on bread, in the place of ordinary butter.

When it is to be marketed in large quantities it is commonly put up in wooden crocks or pails, holding from two quarts to ten gallons. It is sold both by the pound and by the quart. Twenty-five cents per quart is the usual price for a prime article purchased at the provision-houses in the cities. In the Pennsylvania German markets the customers carry it home in their own vessels, and secure it at from ten to twenty-five cents per quart; but when purchased in small quantities, to be eaten at once, the article is more water than if put up for long keeping. A neighbor with a large family of children to do the work, told the writer some time ago that he could clear \$10 from forty gallons of cider made into apple butter.

When made on a large scale, the cider is reduced in vacuum or removal of cores, which are both separated by passing the thoroughly cooked fruit through fine sieves. The centre of the industry is at Waynesboro, Franklin Co., Pa., and at York, Pa. The German name for apple butter is "lotwerg," but in Pennsylvania German it is called "lotwarrick,"—a name said to be in use on the Rhine above Coblenz. The Bohemian name is "lektavar," the Danish "latwerg" and the Swedish name "latwerg."

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In former years very large quantities of apple butter were consumed on all Pennsylvania farms, but its place has now largely been taken by the canned fruits.—New York Tribune.

Notes from Washington, D. C.

The inspection of condensed milk intended for export is one of the duties which falls to the lot of the Secretary of Agriculture under the new dairy product inspection law. The Department considers it a rather difficult problem. Looking into a case of condensed milk containing two dozen sealed individual packages, is not as simple a matter as inspecting a side of beef. The Dairy Division officials state, however, that the export trade of the Atlantic States in this farm product is all right in general. It is on the Pacific Coast, where the shipments are for the Oriental trade, that some supervision is needed. Some good milk is shipped, but along with it much that is poor. Certain factories turn out great quantities of inferior stuff made from skim milk, with poor sugar, a poor article all around made from the waste of creameries.

"What we want to do," said Major Alvord, "is to prevent the exportation of poor milk, the same as other dairy products. Of course, hurts our trade. I do not mean to say that condensed skim-milk has no place, but we do not want foreigners to buy it for whole milk. An effective system is a hard problem. Even with satisfactory inspection of the cases as they leave this country, it would be impossible to brand each can so that by the time the case reached the shelf in the store there would be any protection for the consumer. I think, however, we will work out something. We could probably actually prevent shipments were we so minded. We could hold them up on the ground that the cans are improperly labeled. If necessary we could prevent a ship from sailing. This the department has already done. The law provides that live stock on shipboard shall have certain provisions made for their comfort. In the first place where the shippers refused to heed the instructions of the department on these points the shipmaster was informed by the Government authorities that she could not clear until the regulations had been complied with.

Requests for the bulletin issued by the Department of Agriculture, entitled "The Feeding of Farm Animals," have been so numerous that a reprint has become necessary. This little book makes a dozen or more suggestions and pointed remarks regarding the wants and desires of stock, and what conduces to their happiness and content, and therefore to their best condition, which could probably be read with profit by almost every farmer in the country, certainly by those who do not make a specialty and a study of stock raising and breeding.

Another bulletin which has been reprinted by the Government is "Hog Cholera and Swine Plague." The experiments of the Bureau of Animal Industry, continued from year to year, sustain the claim that hog cholera can be almost prevented through inoculation of serum. Something like fifteen per cent. is the largest loss that occurs with the use of serum, where without inoculation entire droves are swept away.

An interesting suit was recently settled in the Maryland courts sustaining the pure fertilizer law. A firm used several farmers because the latter refused to pay for fertilizer that had fallen twenty per cent. below the guaranteed analysis. The law provides that the purchaser shall not be compelled to pay for goods that are twenty per cent. below the guaranty, and the court rendered a decision in favor of the farmers.

The Commissioner of Agriculture of the State has now issued a bulletin containing the guaranteed analysis of all the brands of fertilizer offered for sale in the State. As the State chemist will analyze any lot of fertilizer sent him the farmer is in a position to know just what he is getting and whether he need pay for it or not. This condition will probably make the manufacturers somewhat less reckless in the future.

The Department of Agriculture experiment farm on the Potomac Flats has grown some very fine Swiss Chard—a new variety. Chard, by the way, is just in its prime, and furnishes an excellent "green" at a time when other vegetables are not at their best. The leaves and stalks—the latter almost as large as asparagus stems—are tender and succulent, somewhat resembling a stock beet top. The plant is sometimes known as the "silver beet," though it entirely lacks the beet-like root.

One of the nicest little side issues possible to a farmer who has a small stream running through his place is willow growing. There is a constant, and if anything increasing demand for basket willows, and in many locations the bushes can be grown with little or no expense or trouble. Men who have gone into it, however, on a very small scale as a trial have generally found it so profitable that they have devoted some thought to its details, and have become extensive willow producers.

The Department of Agriculture some years ago published a short pamphlet describing the best methods of raising willows and the conditions under which they produce the highest-priced reeds. Willows will grow readily wherever the ground is at all moist. Where a man has a small flat, which it would be possible for him to overflow by the construction of a cheap or temporary earth-dam, requiring perhaps a day's labor with his team, it might pay him to look into the willow-production business a little and see if he cannot create an additional industry for the farm, without interfering with the other work. The juvenile members of some farmers' families like to try their hand at making willow-ware during the winter evenings.

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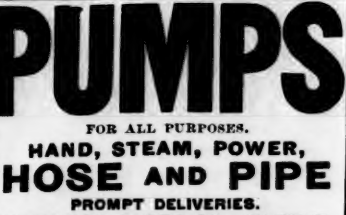
for your pump-out outfit. Circulars on application. We also deal largely in Wind Mills, Tanks and all kinds of Hand and Power Pumps.

SMITH & THAYER COMPANY,
236 Congress St., Boston, Mass.



The Standard Co. manufacture the best line of Bone Cutters made. We ship any size on trial to test the quality. The line consists of eleven different sizes for hand and power, ranging in price from \$6.75 to \$195. The principle of automatic feed, horizontal cylinders, knives cutting across the grain is similar in every size machine we manufacture. Every machine warranted. Send for catalogue.


STANDARD BONE CUTTER CO.
Milford, Mass., U. S. A.



PUMPS

FOR ALL PURPOSES.
HAND, STEAM, POWER,
HOSE AND PIPE
PROMPT DELIVERIES.

CHARLES J. JAGER CO., 174 HIGH ST., BOSTON, MASS.



MOSELEY'S Fruit Evaporator

A little factory for only \$6.00. For use on an ordinary cook stove. No extra expense for fuel. Easily operated. Evaporates apples, pears, peaches, all conditions of small fruits and berries, corn, pumpkin and squash. Send for circular. Agents wanted. Write to

MOSELEY & FRITCHARD MFG. CO.
(Mention this paper.) Chicago, Iowa.



FOR INTERNAL AND EXTERNAL USE.

CURES AND PREVENTS
Colds, Coughs, Sore Throat, Influenza,
Bronchitis, Pneumonia, Swelling
of the Joints, Lumbago,
Inflammations,
Rheumatism, Neuralgia,
Frostbites, Chilblains, Headache, Toothache,
Asthma,
DIFFICULT BREATHING.

CURES THE WORST PAINS in from one to
twenty minutes. NOT ONE HOUR after reading
this advertisement will you suffer with
PAIN.

Radway's Ready Relief is a Sure Cure for
Every Pain, Sprains, Bruises, Pains in
the Back, Chest or Limbs. It was
the First and is the Only
PAIN REMEDY

That instantly stops the most excruciating pains,
allays inflammation, and cures Congestions, whether
of the Lungs, Stomach, Bowels and other glands or
organs, by one application.
A half to a teaspoonful of a half a tumbler of water
will cure fever and ague and all other malarious
affections and other fevers, and all other malarious
affections, so quickly as **RADWAY'S READY
RELIEF**.

50 Cents per bottle. Sold by Druggists.
RADWAY & CO., 50 Elm Street, New York.

Poetry.

JEWEL OF THE SEA.

O, sea, within thy depths what treasures rare
and bright
Are hid from sight;
What wealth of radiant gems are there con-
cealed—
By love revealed.
Myriads of dazzling jewels quiver on thy breast
In tremulous unrest;
What time the sun's warm splendor thee inspires
With fond desire.

Sombre and sad and drear thou art, when he
Departs from thee;
Dark lie the gems beneath thy waves, and lo!
Thou dost mourning go.

EUGENIE ELISE BLAIN.

TODAY.

Today, at least thou'rt here.
I've journeyed many a year,
Had for thee many a fear,
And many a hope most dear.
Today we greet at last,
All yesterday are past,
Now, now unveil thy face,
Grant me thy boon and grace.

Today, I see thee same
As days ago, through which I came,
Thou'rt soon to be gone as they,
The same returnless way.

Today, oh, that I knew
What with thee now to do!
Thou'rt on my hands till night;
God help me use thee right.
—From "Poems by Preston Gurney."

TO THE WOOD ROBIN.

The wooing air is jubilant with song,
And blossoms swell
As leaps the liquid melody along.
The dusky dell,
Where Silence, late supreme, foregoes her wonted
spell.
Ah, hush, in sylvan solitudes remote,
Hast learned the lore
That breeds delight in every echoing note.
The woodlands o'er,
As when, through slanting sun, descends the
quivering shower?
Thy hermitage is peopled with the dreams
That gladden sleep;
Here fancy dabbles with delicious themes
Mid shadows deep.
Till eyes, unused to tears, with wild emotions
weep.

We rise, alas, to find our visions fled!
But thine remain.
Night weaves of golden harmonies the thread,
And fills thy brain
With joys that overflow in Love's awakening
strain.
Yet thou, from mortal influence apart,
Seek'st naught of praise;
The empty plaudits of the empyreal heart
Faint not thy lays.
Thy Maker's smile alone thy tuneful bosom
thrills.
Teach me, thou warbling eremite, to sing
Thy rhapsody;
Nor borne on vain ambition's vaulting wing,
But led of thee,
To rise from earthly dreams to hymn Eternity.
—John B. Tabb, in the New Century.

"LIGHTS OUT."

Shorn of its pride, the flagstaff rears
Its head against the dark sky;
This soldier world at peace appears
As though no fiercer mood were nigh.
Far off some baroque banjo thrums,
And then, across the night that wraps
The place in gentle gloom, there comes
—O passing sweet!—the sound of "Taps."
Before the bugle wakes the lips
Of him whose cunning waked its notes,
A hundred windows glow eclipse,
The laughs are checked, the honest throats
Yet still the horses thump their stalls,
Eager for wider times, perhaps,
While round the cold and harmless halls
The creaks leap, defying "Taps."
The fountain throws its cooling jets
The brighter for the twinkling moon,
Its trickle drowsed by castanets
And now and then a loud bassoon;
For small marsh people are about
To break the silence that envelops.
And none may put the moonlight out
For any silver song of "Taps!"
Indoors, each hardy warrior flings
His tail frame down, as comes that song
'Tis pleasant news the bugle brings,
For soldier days are hard and long.
There's rest in small marsh sounds about,
A river tide that curls and laps,
And one great lamp that none puts out—
That shines, tonight, in spite of "Taps!"
—Jeanette Pendleton Erving, in Youth's Companion.

LIFE.

A train of gay and clouded days,
Dappled with joy and grief and praise,
Battered to fire, to saints to save,
Escort us to a little grave.
—Emerson.

Splendor of ended day,
Be but the door,
Opening the endless way—
Life evermore!
—Elizabeth Porter Gould.

I know not if his eyes are blue,
Nor if his hair is brown or gold,
I only know that for the right
His love is ever strong and bold.
A champion for the wronged and weak,
Against oppression, avarice, strife,
All reverently I raise my glass
And pledge my deepest toast—to—
—Life.

Miscellaneous.

Love and a Motor Car.

Fay lived in a green-creeper-mantled, red-
terrace, twenty miles south of the great, fer-
menting, stewing city. There was a
trellis walk of roses—almost every known va-
riety in bloom this July—and at the end a green
gate opening upon a triangular patch of grass
common, where geese walked in cackling single
file, and a small pond was fenced in by heavily
blossomed blackberry bushes. As Fay leaned
over the green gate—a slender, young figure in a
diaphanous white gown, her supple waist en-
braced by a girdle of moss green velvet, fastened
with a buckle of Burmese silver work, her round,
pink-flushed throat rising from a band of the
same, and her silky abundance of blond hair
crowned with a coquettish hat of rough green
straw—she looked very like a rose herself. The
henna red of raspberry juice showed upon the
tips of her slender fingers as she shaded her
eyes with them and looked anxiously along the
white ribbon of dusty highway that led to Lon-
don. The sheltering hand was very white; the
eyes it screened were of the darkest blue. Then
the blue eyes withdrew from the distant prospect
and fixed themselves upon the gander, who
walked loftily by at that moment, obediently fol-
lowed by his six or seven wives.

"You poor, stupid things!" Fay said, address-
ing them in plain but in anger. "You—
geese—believe him so clever and to do a thing
he tells you! Don't you see that if you
broke out of line and walked separately every
one of you would have a chance of getting some
of the long, straight, brown and other glands or
organs, by one application.
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was the tender, chivalrous lover? Gone, and in
his place a stranger. She remembered Nora in
"The Doll's House." She, too, had found out
the real thing, though Nora had been warned,
longer in finding out hers. She would be warned.
It would hurt her to part from Clem, but not so
poignantly if this was the real Clem. She would
put the brake upon her fate as it thundered with
her down the steep, the cliff-like banks growing
more and more precipitous, the descent more
winding and more perilous with every hundred
yards.

And then she awakened from her miserable
dream to find that Clem was not the man she
loved. She was lying down in a room at the
Lexusham Hill at a fearful rate of speed. If
her lover had had two pairs of arms he would
have wanted all of them. Breathless with the
speed, Fay turned and looked in his face.
And his eyes turned, for Bathurst did not dare
to move his head and something like the old
came into them.

"The brake won't act! I cannot stop the ma-
chine!" The words were shouted above the
hiss of the flying gravel sprayed about the whis-
tling of the wind of their downward flight. It
were an idiot to risk an accident when you
were with me. Forgive me, Fay!"

And Fay cried back, holding on for dear life
as the motor car, from side to side, or
swooped, balanced on the rims of two steel-
wheels, round some terrific curve: "There's
nothing to forgive. I am glad to share the danger
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How the Bear Lost His Tail.

An old fox saw an Indian with a sled-load of
fish. The fox wanted a fish, but was afraid of
the man. How could he get a fish without letting
the Indian know? At last he thought of a plan.
He hid himself down by the sled road, and made
the Indian know that he was dead. The Indian
did not know that he was dead, but did not
have time to take it. He threw the old fox on
the sled with the fish, and pulled the big load toward
his wigwam. While the Indian was hard at work
pulling the sled, the fox pushed off two or three good
fish and then rolled off himself. In a minute he
was out of sight with the fish.

The fox met a wolf, who asked him, "where
did you get the fish?"
"The fox did not let the wolf, but told him the
trick he had played on the Indian."

"It is easy, go do it," said the fox.
"The stupid wolf ran away, and after seeing
the Indian, lay down, and waited as the fox had
done. The Indian found him, but he was not
to be fooled twice by the same trick. He
pounded the old wolf with the stout stick he
used for a cane. The wolf jumped up very sore,
and ran away to find the fox. He did not find
him."

A bear saw the fox eating the fish while the
wolf was gone.
"Where did your fish come from?" asked the
bear.

"Follow that road down to the river, and you
will find a fishing-place. But that long bushy
tail of yours into the water. Wait until the fish
bite it, then snatch them out."

The bear ran down to the river, and did just
as the fox had told him. But when a fishing-
place froze over while the bear waited for the fish to
bite.

The bear did not know this, for his back was
turned to the water. It was a very cold day,
and the bear thought he would wait a while longer,
except that a few Virginians had pushed down
the coast and settled the northern shore of
Albany Sound.

—One of the fire-department hoses in Balti-
more is extremely long of Limburger cheese and
ends in a wooden wheel.

—A white badger, which is almost as great a
rarity as a white blackbird, was killed recently
by the Aze Vale (England) badger hounds.

—Connecticut pays a bounty of \$1 for each
fox killed. Last year the bounty was paid on
payments on this account amounted to \$122.

—The total number of farms in Alabama is
given at 222,220, of which 129,137 are operated by
white farmers and 93,083 by colored farmers.

—Sweden's last census records the lowest
death rate yet attained by a civilized nation. During
the last ten years it only averaged 16.49 per
one thousand.

—According to Dr. Flügge, air will go through
the walls of a closed room at a rate depending on
the difference of temperature between the inside and
the outside.

—Instead of being a modern notion, the plan
of preventing destructive storms by exploding
bombs among the clouds was suggested nearly
one hundred years ago by Prof. Parrot of Riga, in
Russia.

—Salem, N. J., was recently rid of a cater-
pillar plague by National guardsmen. The com-
pany of soldiers, armed with muskets, went out
and cut the caterpillars to pieces with their bayonets.
They were swept up.

—In respect to park area the chief American
cities rank in the order following: New York,
Philadelphia, Boston, St. Louis, Chicago, Cleve-
land, San Francisco, Baltimore, Pittsburgh, New
Orleans and Cincinnati.

—In Russia no meetings of private citizens
for any purpose are permitted; the privilege of
holding meetings is granted only to chartered
corporations or associations. All crowds, except
in places of amusement or worship, are dispersed
by the police. No premises can be hired for the
purpose of holding a meeting without a permit
from the police.

—Salt has a peculiar affinity for water, and as
it cannot easily unite with that substance when
the latter is in the form of ice or snow, it tends to
melt the ice in order to satisfy its craving for
water. The temperature at which fresh-water ice
melts is higher than that at which salt water
freezes. Otherwise liquefaction would not take
place when salt and ice are mixed.

—Every head of clover consists of about sixty
flower tubes, each of which contains an infinite
quantity of sugar. Bees will often visit a
hundred different heads of clover before retiring
to the hive, and in order to obtain the sugar neces-
sary for a load must therefore thrust their
tongues into about six thousand different flowers.
Sometimes a bee will draw the sugar from 100,000
different flowers in the course of a single day's
work.

—The latest development of screw propellers
is due to Mr. C. A. Parsons. The blades are
given reduced pitch toward their tips, small
vanes being also provided on the propeller-cone,
and the effect is to secure high speed without
cavitation, and to give a greater mean thrust than
is possible with blades of constant or increasing
pitch.

A British engineer's new device for steering
twin-screw steamships consists of a special
throttle valve attached to each set of engines,
the valves being connected to a tiller by bell
cranks and linkwork. When the tiller is moved
either way from its central position, one throttle
valve reduces the steam of its set of engines,
diminishing the speed of its screw to a degree
varying with that of the turning of the tiller.

—It has been long known that the colors of
butterflies are influenced by temperature. Expe-
rience has shown that in warm years given by Dr. E.
Fischer some startling results, and have shown
not only that cold seasons may produce new
butterflies from the old, but that abnormal heat
may yield the same varieties, the changes being
due to retarded development. Extreme cold,
however, brings out other variations that may
appear also in extreme heat. He suggests that
these varieties of extreme temperatures may be-
come permanent at a future stage in the earth's
evolution, although Standfuss contends that they
never were and never will be anything but singu-
lar freaks.

—Burra, an animal disease of the Philippines,
is pointed out by Dr. C. W. Stiles as a matter of

body up to that meion, and begin to peek at it!
Tap, tap, tap, went his yellow beak, until he
broke right into the juicy, salmon-pink heart.

It was Harry Wood who saw him, and drove
him back into the hen-yard. But most of the
melon rode away in the stomach of the Plymouth
Rock.

Harry looked down mournfully at the bits of
bird, scattered seeds and pulp remaining on the
melon hill. Then he gathered up the mess, and
ried it among the burdocks on the other side of
the garden fence. After which his long legs car-
ried him down to the Italian's fruit store; and
when he came out again, he bore a bulging paper
bag. Hurrying up street, he reached the Barker
yard—reached Bobbie's ill-fated melon-patch,
and then—and then!

The Barkers came home from the county fair,
and Bobbie went out to his "garden." There
had been melons at the fair, and the sight of
them filled him with fresh affection for his
own solitary treasure. He bent over the brown
mound, parted the green leaves, and—oh, wonder
of wonders!

"Mal mal!" Bobbie shouted. "Do come here.
Why my melon has grown lots just while I've
been gone! And it's so ripe that it's loosened
itself from the stem. Oh-eh! it's perfectly
lovely!"

The Plymouth Rock stuck his red comb through
the thickened rind, and crowed derisively;
but Bobbie didn't notice him.

And Harry Wood was chuckling to himself
across the street, as he said: "That quarter I
was saving toward my new gun is gone, but I
think the joke was worth twenty-five
cents. And, anyhow, a big fellow kind of
look out for a little fellow."—Mary E. Q. Brush,
in Sunday School Times.

Historical.

—Bancroft, the historian, divides the popula-
tion of the various colonies in 1734 as follows:
New England, 436,000; Middle Colonies, 380,000;
and Southern colonies, 600,000 (222,000 being
slaves), making a total of 1,426,000.

The Horse.

The Worcester Meeting.

Worcester Driving Park Company had three days of horse racing without pool selling at Greendale track last week, and, as expected, it proved an expensive experiment. The meeting ate into the profits of former race meets to the extent of \$100, but even so the Driving Park Company will quit the season ahead of the game financially.

There was talk at first that the meeting would be abandoned, excepting the three \$500 stake races which formed a part of the programme, and that these stakes would be raced off in a single afternoon. Rather than disappoint the horsemen who were already on the grounds with their horses, the directors voted to race off every class that had filled, even though at a loss to the company. The average attendance hardly exceeded four hundred, and although good time was made in all the races, straight heats were the rule, each of the events being won in one, two, three order with the exception of the 2:25 pacing stake.

State Detective Peleg F. Murray of Worcester was on the grounds, representing the State police, but there was no occasion for his services. The pool room under the grandstand was shut up tighter than the proverbial drum, and not a public bet of any kind was recorded. A. H. Merrill started the horses, and associated with him in the stand were Mr. Bingham of Hartford and Scott Locke of Manchester, N. H., as judges. The track was in good condition on Tuesday and Wednesday, but was very heavy Thursday afternoon for the free-for-allers, which alone prevented a reduction of the present record of 2:11, held by Terrell S. and made three years ago.

The feature of the first day's racing was the stake for 2:24 class trotters, for which six horses appeared for the word. Chester W. Lasell's royally bred Melton, a winner at Dover the week before, and Walter R. Cox's Alcantara stallion Midnight were expected to make the battle for first money, but both were beaten for top position in the summary by John Riley's game gelding Ralph Wick. It was the first time Wick had been started this season over a half-mile track, but he made the turns right handily, and really had no difficulty in getting the money. Melton drew the pole for the opening heat, but a break at the first turn cost Melton the pole. Ralph Wick moved into the lead, and at no stage of the race was he headed. Melton was unsteady all through the first mile, as was Midnight during the first half. Cox got the stallion to going steadily at the three-quarters pole and set sail after Ralph Wick, who was four lengths to the good. In a drive down the stretch Ralph Wick kept ahead of the black stallion, and won by a length in 2:18.

For the second heat of this race Midnight broke going away, allowing Ralph Wick and Melton to race on ahead to the quarter pole, when Styles came up with Almont King and replaced Melton for second place. Midnight went to the way for third place. Midnight went to another break on the back side, and there was also a ripple in Melton's gait, but only for a moment. Meanwhile Ralph Wick was racing around a length ahead of the chestnut son of the pole. Ralph Wick moved into the lead, and at no stage of the race was he headed. Melton was unsteady all through the first mile, as was Midnight during the first half. Cox got the stallion to going steadily at the three-quarters pole and set sail after Ralph Wick, who was four lengths to the good. In a drive down the stretch Ralph Wick kept ahead of the black stallion, and won by a length in 2:18.

Only one more heat was required for the race Almont King acted badly in scoring, and when Merrill finally sent them away Almont King was lengths behind on a run, and was eventually distanced, refusing to strike a trot until he was hopelessly out. During the first half of the mile Melton forced the clip for Ralph Wick, when Midnight came up and replaced Melton as the contending horse. Cox got out every fraction of speed his stallion possessed, but Ralph Wick was right on edge and refused to be downed, although Cox had the satisfaction of driving the winner out in 2:15, within a fraction of a second of the track trotting record.

Cox had better luck in the 2:26 class pace, in which he landed a straight heat. Like Frank M. won at Dover, N. H., the week before and the comparatively cheap field behind him gave no difficulty. Frank M. showed in front in the last quarter of the first mile, and after that did not relinquish the pole. Brother's mare, a contending factor most of the time with Victor but the gelding fell back in the stretch each time and was beaten out twice by The Goat and once by Redoubtable.

The 2:17 class pace was almost equally easy for F. W. Putnam's chestnut mare, Like Like. Like Like, a fine had taken a fast mark at Dover, and the few in the field that might have made a try for first didn't dare to take a chance of reducing their records. Before the third heat driver Williams, owner of Lady Sleigh, a mare for which he paid \$100 in Indiana last spring, was taken from behind the mare, and Lady Sleigh was turned over to John Riley. The change would probably have worked a difference in the outcome of the race had it not been that Lady Sleigh made a break at the first quarter. Joseph Middleby's chestnut gelding Bob was very rank, and was distanced in the second heat, the hoppers breaking. Later in the afternoon he was hooked out a mile in full view of the grandstand, and was timed by one hundred watches in better than 2:11. The summaries of the opening day were:

Worcester, Mass., Sept. 16, 1902—2:17 class, pace. Purse, \$300.
 Arline, ch m, by Cuba (Putnam).....1 1 1
 Lady Sleigh, b m (Williams).....2 2 2
 Annie M, b m (Gilles).....3 3 3
 San Temo, br g (Gilles).....4 4 4
 Forelight, ch m (Cox).....5 5 5
 Hot Stuff, b m (Kingsley).....6 6 6
 Job, ch g (Lundy).....7 7 7

TIME.
 First heat.....1:07 1:41 2:16
 Second heat.....1:07 1:41 2:16
 Third heat.....1:07 1:41 2:16

Same day—2:24 class, trot. Purse, \$300.
 Ralph Wick, b g, by Almont (Riley).....1 1 1
 Midnight, b m (Cox).....2 2 2
 Melton, br h (Lasell).....3 3 3
 Princess Edho, b m (Gilles).....4 4 4
 Almont King, ch g (Styles).....5 5 5
 Tony Baker, br g (Holmes).....6 6 6

TIME.
 First heat.....1:10 1:45 2:18
 Second heat.....1:10 1:45 2:18
 Third heat.....1:10 1:45 2:18

Same day—2:26 class, pace. Purse, \$300.
 Frank M, ch g, by Strong Boy (Cox).....1 1 1
 The Goat, b g (Richardson).....2 2 2
 Redoubtable, br g (Doble).....3 3 3
 Victor, ch g (Brewster).....4 4 4
 Bobbie R, ch g (Gilles).....5 5 5

TIME.
 First heat.....1:10 1:45 2:19
 Second heat.....1:11 1:46 2:20
 Third heat.....1:11 1:47 2:21

The race the second day in the 2:40 class trotting stake, in which the Oakhurst Farm gelding Dick Berry won the first race of his career, taking first money in straight heats and in impressive fashion. Dick Berry was a better gelding than at any time since Mr. Lasell brought him from the West, and he did not have to step faster than 2:30 to win. His record is 2:14, made at Poughkeepsie track last August. Berry drew the pole and did not relinquish inside position at any time during the three heats. The chestnut mare Mary Rachel and Bob Proctor's Nanita fought out second money. Both mares were inclined to be unsteady. In the third and deciding heat of this race Mary Rachel was leading Nanita fifty yards from the wire when she made another of her periodical breaks, and before Timothy could right her, Nanita had passed the daughter of Simmons, and so had second money won.

Frank Slavin of Providence brought up an easy race winner in the 2:27 class, trot, in the big four-year-old Sable Wilkes colt Navidad, that went a good race in one of the trotting classes at the Narragansett Grand Circuit meeting. Navidad was bred by the Hon. F. C. Sayles at the Mariposa Stock Farm, and was sold at auction in New York last winter for \$700. He drew the pole, and didn't have to half exert himself to win. The first mile, made in 2:21, stands as his record to date, but he is a sure 2:15 trotter as soon as he strikes a mile ring. The roan horse Fuego, by Blingen, was second each heat, but at no time had the speed to challenge the winner.

The 2:30 class pace proved a Worcester event, being won by the local mare Bella, by Young



WINNER OF THE CHARTER OAK \$10,000 STAKE, HARTFORD.

Jim. Bella has been in F. L. Brewster's string all the season, and she certainly went a good race taking a record of 2:18 in the second heat. She is a mare that needs a world of driving, and Brewster was obliged to team her from wire to wire each heat. Spofford, another Worcester trainer, had the contending horse in Joe D. Joe showed in front at the half-mile pole in the second mile, but Bella went at him gamely down the backstretch the second time around, and finally succeeded in beating him out. Dr. F. H. Kendrick won third money with the gray gelding Earl F.

Worcester, Mass., Sept. 17, 1902—2:20 class, pace. Purse, \$300.
 Bella, b m, by Young Jim (Brewster).....1 1 1
 Joe D, b g (Spofford).....2 2 2
 Earl F, gr g (Taylor).....3 3 3
 Fannie L, m m (Gilles).....4 4 4
 Mary Crittenden, b m (Maxim).....5 5 5

TIME.
 First heat.....1:10 1:45 2:21
 Second heat.....1:10 1:45 2:21
 Third heat.....1:11 1:46 2:22

Same day—2:40 trotting stake. Purse, \$300.
 Dick Berry, b g, by Anderson Wilkes (Lasell).....1 1 1
 Nanita, b m (Proctor).....2 2 2
 Mary Rachel, ch m (Timothy).....3 3 3
 Lily of the Valley, b m (Richardson).....4 4 4
 Lassie, b m (Kingsley).....5 5 5

TIME.
 First heat.....1:10 1:45 2:21
 Second heat.....1:11 1:46 2:22
 Third heat.....1:11 1:47 2:23

The week's racing was brought to a close Thursday afternoon with the free-for-all and the 2:35 pacing stake. The latter race created a great deal of local interest, owing to the presence in it of the Alexander mare Hetty Green (2:11), owned by E. C. Taylor, Worcester's millionaire real estate man. Hetty Green had a most formidable opponent, however, in A. E. Richardson's bay gelding Peter Patron. Hetty won the first heat, taking the lead at the start and keeping it throughout the seven furlongs, and in the second heat, and in a great drive down the home stretch Peter Patron reached the wire first by a scant nose. After that Peter Patron had things his own way, Hetty tiring badly in the heavy going.

In the free-for-all Frank Yokum surprised the race-goers by winning first over a fast field. Dumont W. and Annadrosi were picked to be the dangerous horses, but they were not able to outfoot the speedy Yokum.

Worcester, Mass., Sept. 18, 1902—2:35 class, pacing stake. Purse, \$300.
 Peter Patron, b g, by Patron (Richardson).....1 1 1
 Hetty Green, b m (Cox).....2 2 2
 Chum Boy, ch g (Gilles).....3 3 3
 Lanier, b m (Palmer).....4 4 4
 Alek M, ch m (Holmes).....5 5 5

TIME.
 First heat.....1:10 1:45 2:21
 Second heat.....1:11 1:46 2:22
 Third heat.....1:11 1:47 2:23

Same day—Free-for-all. Purse, \$300.
 Frank Yokum, br g, by Parker (Doble).....1 1 1
 Dumont W, b g (Ernst).....2 2 2
 Annadrosi, ch g (Kent).....3 3 3

TIME.
 First heat.....1:10 1:45 2:21
 Second heat.....1:11 1:46 2:22
 Third heat.....1:11 1:47 2:23

Event No. 2, trot.
 Nellie Hoza, gr m, by Clay King (Mr. Peter B. Broady).....1 1 1
 Armilla, b m, by Wilkes Boy (Mr. W. B. Farmer).....2 2 2
 Sude K, b m (Mr. C. H. Belledue).....3 3 3
 Ivy Yine, b m (Mr. D. Whittemore).....4 4 4
 Keryx, b g (Dr. S. H. Blodgett).....5 5 5

TIME.
 First heat.....1:10 1:45 2:21
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 Third heat.....1:11 1:47 2:23

Event No. 3, trot.
 Whitehead, gr g, by Woodlark (Mr. John Shepard).....1 1 1
 Tuxey two, b g (Mr. Charles Sanders).....2 2 2
 Ben Wilkes, b m (Mr. G. A. Graves).....3 3 3
 Time, 2:10, 2:16.

Event No. 4, trot.
 Nellie Wilkes, b m, by Wilkes (Mr. C. W. Rowley).....1 1 1
 Charlie King, b m, by May King (Mr. G. P. Leonard).....2 2 2
 Brightlight, ch h (Mr. P. H. Bradley).....3 3 3
 Time, 2:12, 2:17, 2:17.

Event No. 5, trot.
 Alito, b g, by Alcantara (Mr. John Shepard).....1 1 1
 Silver Glow, b g (Mr. Charles Sanders).....2 2 2
 Temple Wilkes, b g (Mr. John O'Connor).....3 3 3
 Miss Duke, b m (Mr. W. B. Farmer).....4 4 4
 Time, 2:14, 2:15.

Event No. 6, trot.
 Burlington Boy, ch g, by Alexander (Mr. A. C. Aldrich).....1 1 1
 Lotie Pells, b m (Mr. A. H. Alby).....2 2 2
 Dominant, b g (Mr. W. B. Farmer).....3 3 3
 Jack Bowen, br g (Mr. W. D. Hunt).....4 4 4
 Time, 2:19, 2:18.

Event No. 7, pacing.
 Early Bird Jr, b m, by Early Bird (Mr. George R. Hall).....1 1 1
 Kenner's Star, b g, by Robert McGregor (Mr. C. H. Belledue).....2 2 2
 Jesse H, b m (Mr. Charles Sanders).....3 3 3
 Time, 2:19, 2:19.

New Haven (Conn.) Notes.

The twenty-fourth annual exhibition of the New Milford Agricultural Society was held on grounds owned by the association, called Conetia Park, on the 16th, 17th and 18th of this month. It was a fair that the members may be proud of for the reason that, in consequence of fine weather, the exhibits and attendance were large, the horse races were satisfactory, and as far as known, the fair was free from objectionable features. If the ordinary swindling games were present the writer did not see them. Evidently many men with objectionable games are tolerated at other fairs, but were not allowed at New Milford.

The exhibition hall, other buildings and several tents were filled with exhibits and the crowd in attendance. On the space between the main building and the judges' stand were the usual variety of salesmen, shouters, fakirs, sideshow men and others that constitute an attractive part of any fair. Without some of these attractions an exhibition would be a tame one. Excellent management was indicated in several departments at Conetia Park. An incident that illustrates the generosity of the New Milford members was related to me after the close of the exhibition.

A gentleman recently stated that he had an exclusive privilege at the New Milford Fair of last year, which proved to be a very unfortunate investment for him. His financial loss was a big one. This year the management gave him the same privilege without any charge. Such generosity is quite sure to prove beneficial to the society. The officers of the association are: J. Leroy Buck, president; Noble Bennett, vice president; J. Edwin Hungerford, secretary; Edward J. Emmons, treasurer. Hubert Thomas is one of the prominent members who was very busy during the recent show. The success of the fair is partly accounted for by the harmonious work of the officials.

At an early hour the horse races were started before an appreciative audience in the grandstand that contained many women. Attractive ladies and fine, healthy-looking girls, many of them in expensive attire, were numerous at the fair. The judges were Edward Taylor, J. M. Benjamin and E. O. Marsh. The time was taken by N. S. Thomas and J. H. Cochran.

F. L. Newton, who represents the HORSE BREEDER in New Haven, officiated as starter, and managed to get the fields away without tiresome curing. With eleven starters in the first race the drivers required a warning, after which they came right for the word and the race commenced. Particulars are in the summary.

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 Time, 2:12, 2:17, 2:17.

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 Armilla, b m, by Wilkes Boy (Mr. W. B. Farmer).....2 2 2
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 Keryx, b g (Dr. S. H. Blodgett).....5 5 5

TIME.
 First heat.....1:10 1:45 2:21
 Second heat.....1:11 1:46 2:22
 Third heat.....1:11 1:47 2:23

Horsemen who saw Cresco trot at Philadelphia last week are predicting that he will never trot another mile in so low time as 2:02. That won't discourage the mighty son of Robert McGregor, however. Such predictions, in fact, are rather a favorable omen. It has often been the case in the past that just when a stallion has been denounced a failure as a sire, his get begin to come to the front at once.

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